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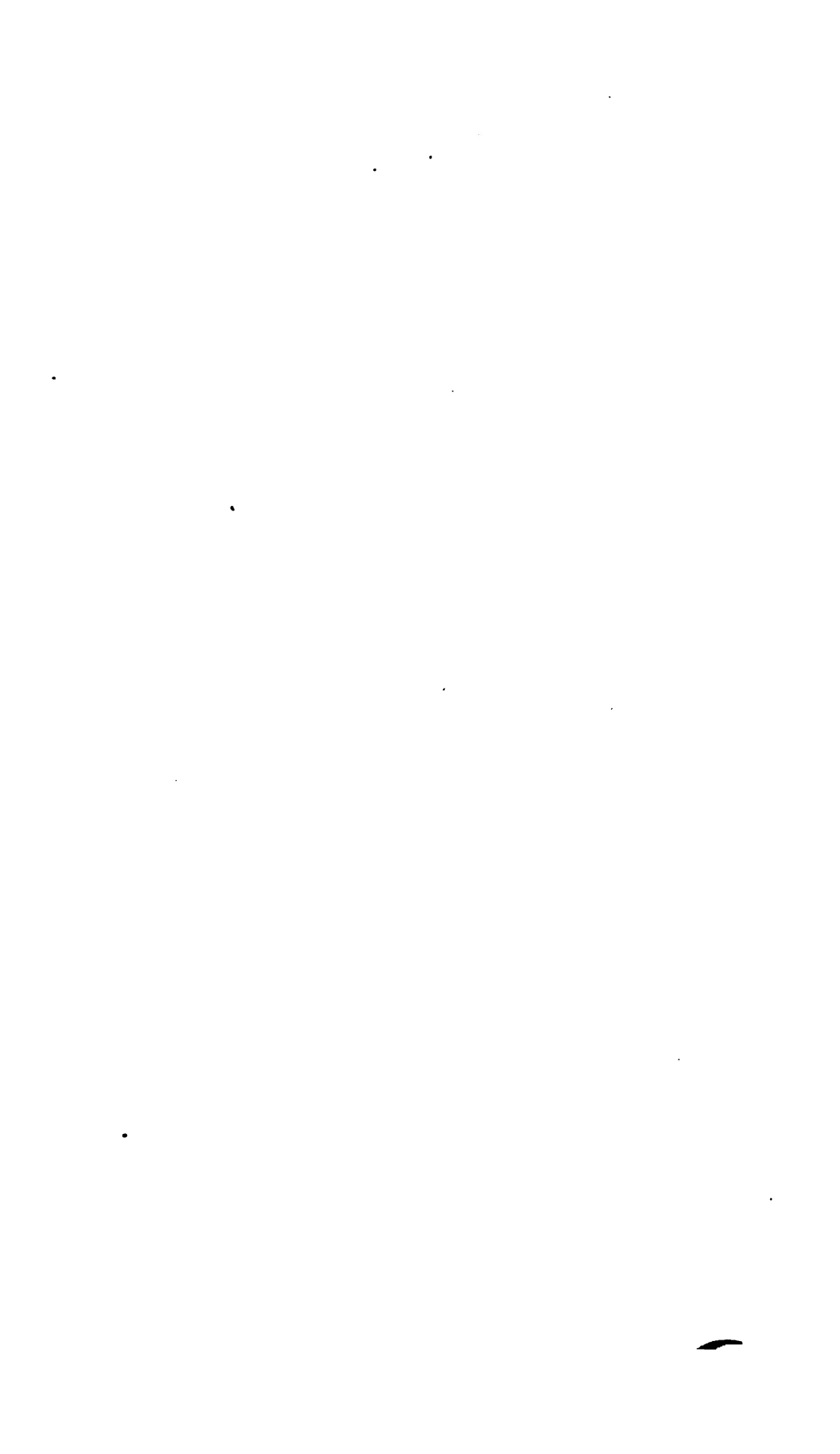
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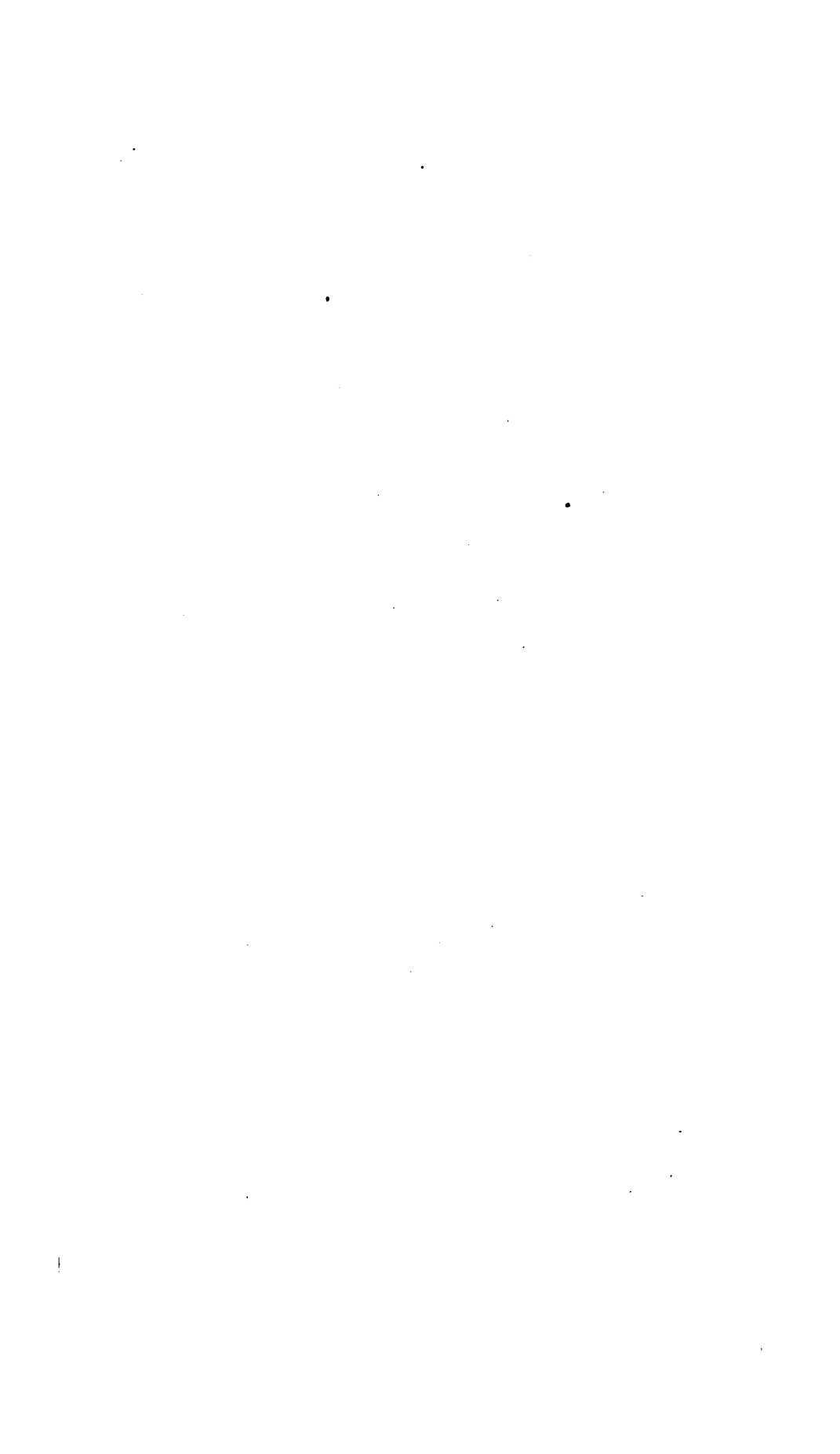


Cambridge  
STF









# Annual Report

OF THE

# SCHOOL COMMITTEE

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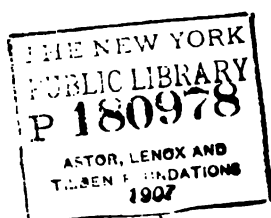
City of Cambridge

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**City of Cambridge**  
**Massachusetts**

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**ANNUAL REPORT**  
**OF THE**  
**SCHOOL COMMITTEE**

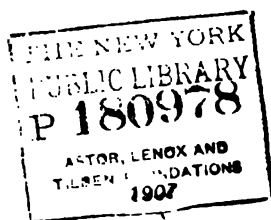
**PREPARED BY THE**  
**SUPERINTENDENT OF SCHOOLS**

**1906**



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## SCHOOL COMMITTEE.

1907.

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HON. WALTER C. WARDWELL, *Chairman ex officio.*

	Term expires, Dec.
*MR. WARREN P. ADAMS, 12 Sumner Road . . . .	1908
*REV. GEORGE W. BICKNELL, D.D., 330 Harvard Street	1907
LAWRENCE G. BROOKS, Esq., 8 Francis Avenue . . .	1907
*MRS. CAROLYN P. CHASE, 19 Lancaster Street . . .	1909
MR. EDWIN L. CHENEY, 3 Clinton Street . . . .	1908
EDWARD A. COUNIHAN, JR., Esq., 130 Otis Street . .	1909
MISS ADA R. KINSMAN, 15 Watson Street . . . .	1908
*DR. SHERMAN R. LANCASTER, 5 Pleasant Street . .	1907
MR. JAMES A. LEW, 40 Magee Street . . . . .	1909
MR. WILLIAM TAGGARD PIPER, 179 Brattle Street . .	1909
J. HENRY RUSSELL, Esq., 176 Hancock Street . . .	1909
MR. FRANK E. SANDS, 22 Avon Street . . . . .	1907
MR. JOSEPH E. SHARKEY, 259 Elm Street . . . . .	1908
DR. JOHN E. SOMERS, 1979 Massachusetts Avenue . .	1908
REV. ROBERT WALKER, 74 Fourth Street . . . . .	1907

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WILLIAM TAGGARD PIPER, *President.*

SANFORD B. HUBBARD, *Secretary and Agent.*

WILLIAM E. McANAU, *Page.*

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Regular meetings of the school committee are held on the third Thursday of each month at 8 o'clock P. M.

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## SUPERINTENDENT OF SCHOOLS.

WILLIAM C. BATES . . . . . Residence, 13 Forest Street.

OFFICE HOURS.

CITY HALL.

From 4 to 5 o'clock P.M. on school days.

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\*Elected at large.

## STANDING COMMITTEES.

1907.

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*Teachers*—Mr. Bicknell, Mr. Walker, Mr. Piper, Mr. Adams, and Mr. Somers.

*Text-Books*—Mr. Lancaster, Mr. Russell, Mr. Bicknell, Mr. Sharkey, and Mr. Brooks.

*Schoolhouses*—Mr. Somers, Mr. Lancaster, Mr. Cheney, Mr. Adams, and Mr. Counihan.

*High Schools*—Mr. Lancaster, Mr. Piper, Mr. Walker, Mrs. Chase, and Mr. Sharkey.

*Training School*—Mr. Sands, Mr. Walker, Miss Kinsman, Mr. Cheney, and Mr. Somers.

*Kindergartens*—Mrs. Chase, Mr. Lew, Miss Kinsman, Mr. Sands, and Mr. Counihan.

*Evening Schools*—Mr. Walker, Mrs. Chase, Mr. Bicknell, Mr. Lew, and Mr. Brooks.

*Special Studies*—Mr. Sharkey, Mr. Bicknell, Mr. Lew, Miss Kinsman, and Mr. Counihan.

*Rules*—Mr. Russell, Mr. Adams, and Mr. Sharkey.

*Finance*—The President, *ex officio*, Mr. Russell, and Mr. Sands.

*Supplies*—Mr. Russell, Mr. Cheney, and Mr. Brooks.

## THE ASSIGNMENT OF SCHOOLS.

1907.

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The schools are assigned to individual members of the school committee as follows:—

*To Mr. Adams* — The Agassiz, the Felton, and the Merrill.

*To Mr. Bicknell* — The Harvard.

*To Mr. Brooks* — The Houghton, and the Riverside.

*To Mrs. Chase* — The Holmes, and the Peabody.

*To Mr. Cheney* — The Parker, and the Roberts.

*To Mr. Counihan* — The Gore, and the Thorndike.

*To Miss Kinsman* — The Boardman, and the Willard.

*To Mr. Lancaster* — The Morse, and the Tarbell.

*To Mr. Lew* — The Webster.

*To Mr. Piper* — The Cushing, the Lowell, and the Russell.

*To Mr. Russell* — The Fletcher, and the Gannett.

*To Mr. Sands* — The Reed, the Shepard, and the Wyman.

*To Mr. Sharkey* — The Kelley, and the Otis.

*To Mr. Somers* — The Ellis, and the Sleeper.

*To Mr. Walker* — The Lassell, the Putnam, and the Taylor.

The kindergartens are assigned to the members of the Committee on Kindergartens.



## REPORT OF THE SCHOOL COMMITTEE FOR 1906

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In compliance with Section 44 of the Rules of the School Board, the Superintendent herewith submits his second annual report, it being for the year ending December 31, 1906:—

This report follows the plan which has obtained in the reports of the Cambridge School Committee for a number of years.

Information concerning the methods of instruction pursued in the schools, tables of statistics, and statements showing the expenditures are given in such a way that citizens may have accurate information about the management of the schools and their cost.

### POPULATION OF CAMBRIDGE.

1875	47,838	1895	81,643
1885	58,658	1905	97,434
1906 (estimated)		99,934	

### SCHOOL CENSUS.

Number of children in the city five years old or more, but less than fifteen.

1875 (taken in May)	8,128	1895 (taken in May)	12,869
1885 (taken in May)	10,957	1905 (taken in September)	15,858
1906 (taken in September)		15,929	

### SCHOOLS AND CLASSROOMS.

December, 1906.

Latin School	1	Classrooms in use	16
English High School	1	"	12
Rindge Manual Training School	1	"	14
Grammar Schools	5	"	70
Grammar and Primary Schools	14	"	156
Primary Schools	14	"	77
Kindergartens	16	"	16
Evening High School	1	"	11
Evening Drawing Schools	2	"	4
Evening Manual Training School	1	"	3
Evening Elementary Schools	4	"	32
Whole number of Day Schools			52
Whole number of classrooms for Day Schools			331
Whole number of Evening Schools			8
Whole number of classrooms for Evening Schools			50

## REPORT OF SCHOOL COMMITTEE.

## NUMBER OF TEACHERS IN THE DAY SCHOOLS.

[The directors of special studies and the teachers of sewing are included in the totals.]

December	Latin School	English High School	Manual Training School	Grammar Schools	Primary Schools	Kinder-gartens	Total
1902	24	24	15	179	140	25	417
1903	23	24	16	183	142	29	428
1904	23	24	19	187	142	29	435
1905	24	24	22	191	144	32	*451
1906	25	25	22	199	143	31	*459

\* Four unassigned teachers are included in the total for 1905 and 1906.

## ATTENDANCE AT ALL THE DAY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1902	16,341	14,244	13,215	92.8
1903	16,394	14,397	13,250	92.0
1904	16,237	14,454	13,361	92.4
1905	16,381	14,606	13,550	92.8
1906	16,740	14,907	13,855	92.9

## ATTENDANCE AT THE LATIN SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1902	468	465	441	95.1
1903	501	474	451	94.9
1904	516	487	465	95.5
1905	564	531	506	95.2
1906	577	530	508	95.8

## ATTENDANCE AT THE ENGLISH HIGH SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1902	577	498	464	93.1
1903	583	493	470	95.3
1904	605	556	530	95.4
1905	595	550	525	95.5
1906	619	570	545	95.8

# REPORT OF SCHOOL COMMITTEE.

11

## ATTENDANCE AT THE MANUAL TRAINING SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1902	254	242	229	94.4
1903	300	262	251	95.9
1904	351	315	302	95.9
1905	426	396	377	95.1
1906	489	440	417	94.7

## ATTENDANCE AT THE GRAMMAR SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1902	7,359	6,711	6,316	94.1
1903	7,279	6,725	6,306	93.8
1904	7,322	6,701	6,316	94.3
1905	7,457	6,713	6,331	94.3
1906	7,412	6,887	6,508	94.5

## ATTENDANCE AT THE PRIMARY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1902	6,687	5,708	5,249	92.0
1903	6,711	5,755	5,227	90.8
1904	6,534	5,705	5,194	91.0
1905	6,359	5,629	5,173	91.9
1906	6,682	5,738	5,273	91.9

## ATTENDANCE AT THE KINDERGARTENS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1902	976	620	516	83.2
1903	1,020	688	545	79.2
1904	929	690	554	80.2
1905	980	787	638	81.1
1906	961	742	604	81.3



**NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE LATIN SCHOOL**  
**Course, 5 years.**

Year	Boys	Average Age	Girls	Average Age
1902	60	14 years 5 months	88	14 years 4 months
1903	65	14 years 4 months	80	14 years 5 months
1904	67	14 years 5 months	91	14 years 7 months
1905	61	14 years 6 months	92	14 years 8 months
1906	67	14 years 2 months	85	14 years 2 months

**NUMBER OF PUPILS GRADUATED FROM THE LATIN SCHOOL.**  
**Course, 5 years.**

Year	Boys	Average Age	Girls	Average Age
1902	23	19 years 1 month	39	18 years 9 months
1903	18	18 years 4 months	31	18 years 10 months
1904	19	18 years 1 month	31	18 years 9 months
1905	40	18 years 11 months	30	18 years 7 months
1906	27	18 years 6 months	32	18 years 8 months

**NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE ENGLISH HIGH SCHOOL.**

Year	Boys	Average Age	Girls	Average Age
1902	41	14 years 8 months	155	15 years 1 month
1903	58	14 years 8 months	192	15 years 0 months
1904	24	14 years 5 months	186	15 years 0 months
1905	10	14 years 6 months	209	14 years 6 months
1906	17	14 years 6 months	233	14 years 11 months

**NUMBER OF PUPILS GRADUATED FROM THE ENGLISH HIGH SCHOOL.**

Year	Boys	Average Age.	Girls	Average Age.
1902	25	18 years 7 months	61	18 years 9 months
1903	15	18 years 8 months	58	18 years 7 months
1904	12	18 years 7 months	64	18 years 9 months
1905	13	18 years 10 months	61	18 years 9 months
1906	7	17 years 7 months	67	18 years 5 months

**NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE MANUAL TRAINING  
SCHOOL, WITH THE NUMBER OF GRADUATES.**

Year	Admitted	Average Age	Graduated	Average Age
1902	127	15 years 2 months	23	19 years 2 months
1903	144	15 years 2 months	38	18 years 7 months
1904	194	15 years 0 months	30	18 years 3 months
1905	199	15 years 0 months	32	18 years 7 months
1906	167	14 years 11 months	45	18 years 9 months

**NUMBER OF PUPILS GRADUATED FROM THE GRAMMAR AND PRIMARY SCHOOLS.**

Year	Grammar Schools. Course, 6 yrs.	Average Age	Primary Schools. Course, 3 yrs.	Average Age.
1902	643	14 years 11 months	1,460	9 years 6 months
1903	648	14 years 9 months	1,428	9 years 5 months
1904	708	14 years 10 months	1,444	9 years 6 months
1905	720	14 years 10 months	1,427	9 years 6 months
1906	713	14 years 9 months	1,609	9 years 5 months

**LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE  
GRAMMAR SCHOOLS.**

Year	In 4 years	In 5 years	In 6 years	In 7 years or more
1902	7 per cent	27 per cent	51 per cent	15 per cent
1903	6 per cent	26 per cent	53 per cent	15 per cent
1904	5 per cent	28 per cent	52 per cent	15 per cent
1905	6 per cent	28 per cent	53 per cent	13 per cent
1906	6 per cent	27 per cent	51 per cent	16 per cent

**LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE  
PRIMARY SCHOOLS.**

Year	In 2 years	In 2½ years	In 3 years	In 3½ years	In 4 years	In 4½ years or more
1902	3 per cent	2 per cent	62 per cent	4 per cent	20 per cent	9 per cent
1903	3 per cent	2 per cent	60 per cent	5 per cent	22 per cent	8 per cent
1904	3 per cent	3 per cent	54 per cent	6 per cent	24 per cent	10 per cent
1905	2 per cent	1 per cent	60 per cent	6 per cent	21 per cent	10 per cent
1906	4 per cent	1 per cent	58 per cent	4 per cent	25 per cent	8 per cent

## NUMBER OF PUPILS IN THE LATIN SCHOOL, DECEMBER, 1906.

Grade	Boys	Girls	Total	Per cent
Fourteenth .....	28	39	67	.128
Thirteenth .....	41	53	94	.180
Twelfth .....	30	49	79	.152
Eleventh .....	38	82	120	.229
Tenth .....	74	89	163	.311
Total .....	211	312	523	

## NUMBER OF PUPILS IN THE ENGLISH HIGH SCHOOL, DECEMBER, 1906.

Grade	Boys	Girls	Total	Per cent
Thirteenth .....	16	118	134	.211
Twelfth .....	10	95	105	.166
Eleventh .....	8	127	135	.213
Tenth .....	17	229	246	.388
Specials .....	.	14	14	.022
Total .....	51	583	634	

## NUMBER OF PUPILS IN THE MANUAL TRAINING SCHOOL, DECEMBER, 1906.

Grade	Boys		Per cent
Thirteenth .....	58	This school is for boys only. It became a part of the public school system, January 1, 1899.	.132
Twelfth .....	90		.308
Eleventh .....	135		.205
Tenth .....	155		.355
Total .....	438		

## NUMBER OF PUPILS IN THE GRAMMAR SCHOOLS, DECEMBER, 1906.

Grade	Boys	Girls	Total	Per cent
Ninth .....	273	385	658	.089
D .....	68	65	133	.018
Eighth .....	363	464	827	.112
C .....	88	90	178	.024
Seventh .....	506	562	1,068	.145
Sixth .....	588	603	1,191	.162
B .....	109	100	209	.029
Fifth .....	658	652	1,310	.177
A .....	173	167	340	.046
Fourth .....	788	670	1,458	.198
Total .....	3,614	3,758	7,372	

## NUMBER OF PUPILS IN THE PRIMARY SCHOOLS, DECEMBER, 1906.

Grade	Boys	Girls	Total	Per cent
Third .....	862	786	1,648	.289
Second . . . . .	964	869	1,833	.321
First .....	1,213	1,014	2,227	.390
Total .....	3,039	2,669	5,708	

## NUMBER OF PUPILS AND TEACHERS IN THE KINDERGARTENS.

Year	Boys	Girls	Total	Number of Teachers
1903	383	381	764	29
1904	378	364	742	29
1905	415	419	834	32
1906	398	402	800	31

## NUMBER OF PUPILS BELONGING TO THE EVENING DRAWING SCHOOLS, WITH THE AVERAGE ATTENDANCE.

1901	1902	1903	1904	1905	1906
193	220	187	167	188	220
97	114	98	102	115	94

## NUMBER OF PUPILS BELONGING TO THE EVENING HIGH AND ELEMENTARY SCHOOLS, WITH THE AVERAGE ATTENDANCE.

1901	1902	1903	1904	1905	1906
1,286	1,367	1,664	1,795	2,306	2,312
464	510	625	720	893	1,010

## NUMBER OF PUPILS IN THE PRIVATE SCHOOLS IN CAMBRIDGE, INCLUDING THOSE IN THE PAROCHIAL SCHOOLS.

1901	1902	1903	1904	1905	1906
3,439	3,451	3,711	4,047	4,100	4,068

## REPORT OF SCHOOL COMMITTEE.

## NUMBER OF AGE AND SCHOOLING CERTIFICATES ISSUED.

1901	1902	1903	1904	1905	1906
887	507 *354	565 *655	578 *859	666 *749	851 *1,137

\* Issued to minors over sixteen years of age, in accordance with the law of 1902.

## COST OF INSTRUCTION IN THE DAY SCHOOLS.

[Salaries of teachers, superintendent, supervisor, agent, clerks, and truaut officers.]

Year	Number of Teachers in December	Average Number of Pupils	Whole Cost	Cost per Pupil
1876	176	7,066	\$164,818. 00	\$23 32
1880	182	7,175	130,371 75	18 17
1884	216	8,414	152,290 62	18 09
1888	241	9,756	175,773 80	18 02
1892	284	10,861	207,144 22	19 07
1896	337	11,957	245,104 01	20 50
1898	364	12,907	268,182 97	20 78
1900	409	13,816	326,512 34	23 63
1902	417	14,244	343,787 00	24 14
1903	428	14,397	349,179 80	24 25
1904	435	14,454	356,406 89	24 66
1905	* 451	14,606	366,448 39	25 09
1906	* 459	14,907	377,343 02	25 31

## COST OF THE DAY SCHOOLS.

[This includes the cost of instruction, of text-books and supplies, of incidental expenses, of the care of truants, of the care and repair of schoolhouses, and of the transportation of pupils.]

Year	Number of Teachers in December	Average Number of Pupils	Whole Cost	Cost per Pupil
1876	176	7,066	\$200,894 09	\$28 43
1880	182	7,175	153,967 56	21 45
1884	216	8,414	203,234 56	24 15
1888	241	9,756	225,408 57	23 10
1892	284	10,861	266,651 02	24 55
1896	337	11,957	316,090 83	26 44
1898	364	12,907	345,566 30	26 77
1900	409	13,816	417,554 00	30 22
1902	417	14,244	427,356 71	30 00
1903	428	14,397	429,554 39	29 84
1904	435	14,454	450,310 44	31 15
1905	* 451	14,606	462,412 09	31 66
1906	* 459	14,907	464,529 43	31 16

\* Four unassigned teachers are included.

† In accordance with the statutory definition of the support of public schools, the cost of the repair of schoolhouses has not been included in the cost of the schools since 1902 and will not be in the future.

## COST OF INSTRUCTION IN THE EVENING SCHOOLS.

Year	Drawing	High	Manual Training	Elementary	Total
1902	\$1,298 00	\$1,682 75	.....	\$3,218 50	\$6,199 25
1903	1,428 00	1,683 00	.....	5,000 50	8,111 50
1904	1,343 00	1,577 50	.....	5,708 00	8,628 50
1905	1,491 00	1,709 00	\$180 00	6,436 00	9,816 00
1906	1,647 00	1,830 00	788 00	7,440 50	11,705 50

## FINANCES.

(For the financial year ending December 1, 1906.)

Cost of instruction in the day schools . . . . .	\$377,848 02
Cost of instruction in the evening schools . . . . .	11,705 50
Cost of care of buildings, including heat and light, day schools . . . . .	58,052 91
Cost of care of buildings, including heat and light, evening schools . . . . .	2,727 48
Cost of text-books and supplies, day schools . . . . .	24,239 23
Cost of text-books and supplies, evening schools . . . . .	396 95
Expended for care of truants . . . . .	2,317 15
Expended on flags and flagstuffs . . . . .	44 85
Expended for incidentals . . . . .	2,184 27
Expended for transportation of pupils . . . . .	348 00
Expended on vacation schools . . . . .	1,801 27
Expended on Rindge Manual Training School, alterations . . . . .	83 77
Expended on Rindge Manual Training School, equipment . . . . .	364 63
Expended on Houghton schoolhouse . . . . .	197 50
Expended on Roberts schoolhouse . . . . .	72 38
Expended on Wellington schoolhouse . . . . .	8,229 29
Expended for furniture . . . . .	1,894 47
Expended for repairs to buildings, furniture, etc. . . . .	25,646 50
Expended for sundry labor in building department . . . . .	2,176 24
	<b>\$519,825 51</b>

Deducting from the above the amount received for the tuition of State and Boston City Wards, \$1,013.00, the tuition of non-resident pupils, \$5,123.00, rebates on pay-rolls, \$9.50, the amount received for the sales and damages of books, \$687.81, and the amount received for the sale of old material in the building department, \$25.00 . . . . .

**\$6,858 31**

The actual cost of the schools to the city is . . . . . **\*\$512,967 20**

Assessed value of real and personal estates, May, 1906 . . . **\$105,153,235 00**

Ratio of expenditure for school purposes to the valuation of 1906 . . . . . **.0049**

\*The amount given above is the actual cost of the schools for the year 1905-1906. The statement differs from that of the city auditor, as expenditures were made and bills approved by the school committee for \$4,750.35 for text-books, \$623.97 for the care of truants, and \$667.73 for incidental expenses, a total of \$6,042.25, which were not paid during this financial year.

## TABULAR VIEW — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1906
Ellis, Grammar.....	Edward O. Grover..... Ernest Libby..... Nellie A. Hutchins..... Caroline L. Blake..... Adelaide G. Bunker..... Emma A. Faulkner..... Lottie L. Griswold..... Louise H. Griswold..... Ellen J. Hunt..... Flora C. Ingraham..... Ida J. Mahoney..... Sarah W. Mendell..... Mary A. Stephenson..... Josephine C. Wyman.....	\$2,100 1,000 900 800 750 700 700 700 700 700 600 700 700 700	503
Felton, Primary.....	C. Florence Smith..... Marcia R. Bowman..... S. Emma Davis..... Carrie H. Smith.....	770 700 700 700	144
Fletcher, { Grammar..... { Primary.....	George B. Colesworthy..... Nellie A. Coburn..... Frances E. Higgins..... Gertrude M. Baker..... Mary I. Chapin..... Ellen A. Cheney..... Mary B. Cole..... Mary A. Doran..... Mary N. Flewelling..... Katherine A. Gaskill..... Elmira F. Hall..... Martha B. Perkins..... Marion Prescott..... Susan L. Senter..... Eva A. Taylor..... Gertrude M. Webster..... Emma G. Wentworth.....	1,600 800 750 550 700 700 550 700 550 700 700 700 700 700 700 550 650	{ 337 324
Gannett, Primary.....	Mary A. Rady..... Annie M. Billings..... Margaret F. Sanderson..... Gertrude T. Sullivan.....	775 700 700 700	147
Gore, Primary.....	Frances E. Pendexter..... Charlotte A. Callahan..... Katherine L. Dolan..... Mary L. Donovan..... Minnie A. Doran..... Kate A. Hegarty..... Katherine L. McElroy..... Julia G. McHugh..... Olive I. McNulty..... Mary E. Mulloney..... Anastasia Peters..... Nora E. Reardon.....	810 700 700 550 700 700 700 700 500 700 700 700	424

## TABULAR VIEW — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1906
Harvard, Grammar.....	Thomas W. Davis.....	\$2,100	752
	William L. MacGregor.....	1,200	
	Margaret B. Wellington.....	900	
	Estelle J. French.....	750	
	Hortense O. Young.....	750	
	Annie M. Street.....	750	
	Addie L. Bartlett.....	700	
	Winifred V. Cobb.....	700	
	M. Blanche Craig.....	500	
	Frances Fabyan.....	700	
	Margaret M. Fearn.....	700	
	Annie B. Lowell.....	700	
	Gertrude P. McCusker.....	500	
	Josephine MacDonald.....	700	
	Wattie M. Nash.....	700	
	Laura L. Parmenter.....	700	
	Louise C. Patterson.....	700	
	Elizabeth L. Setchell.....	700	
Holmes, { Grammar.....	Susan E. Wyeth.....	765	{ 80
	Catherine M. Doran.....	550	
	Gertrude A. Kenney.....	500	
Houghton, { Grammar.....	John W. Freese.....	2,100	{ 485
	Blanche E. Townsend.....	900	
	Alice P. Fay.....	750	
	Grace D. Beckwith.....	700	
	Katherine F. Callahan.....	650	
	Eldora J. Clark.....	700	
	Mary I. Ellis.....	700	
	Katharine M. Greene.....	550	
	Winifred L. Kinsley.....	700	
	Emma Penney.....	700	
	Margaret J. Penney.....	700	
	Bessie H. Pike.....	700	
	Anna G. Scannell.....	550	
	Hattie Shepherd.....	700	
	Mary G. Snow.....	500	
Kelley, { Grammar.....	*Everett L. Getchell.....	2,100	{ 397
	H. Warren Foss.....	1,200	
	Ellen A. Kidder.....	750	
	Alice B. Carmichael.....	450	
	Ellen T. Carroll.....	450	
	Olive L. Cook.....	600	
	Josephine Day.....	700	
	Maude M. Dutton.....	700	
	Lucy M. Fletcher.....	700	
	Carrie M. Ford.....	600	
	Jennie C. Hardy.....	700	
	Emma J. Houlihan.....	700	
	Catherine A. McLean.....	700	
	Mary E. Moran.....	550	
	Ethel I. Murch.....	700	
Kelley, { Primary.....	Eva G. Oakes.....	700	{ 350

\* Resigned February 8, 1907.



## TABULAR VIEW — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1906
Kelley, Continued.....	Esther D. Paul.....	\$700	
	Carrie L. Power.....	700	
	Mary E. Regan.....	700	
Lassell, Primary.....	Frances E. Whoriskey.....	770	169
	Rose V. Collier.....	700	
	Elizabeth B. Gahm.....	700	
	Mary E. Whoriskey.....	700	
Lowell, { Grammar .....	Eusebia A. Minard.....	770	{ 30
{ Primary .....	Agnes J. McElroy.....	700	{ 68
	Cora B. Poole.....	550	
Merrill, Primary .....	Louise W. Harris.....	785	270
	Julia M. Davis.....	700	
	Henriette E. de Rochemont.....	700	
	Daisy E. Haynes.....	700	
	Marion B. Magwire.....	700	
	Gertrude S. Thayer.....	600	
	Nellie F. Walker.....	700	
Morse, { Grammar .....	Mary A. Townsend.....	2,100	{ 457
{ Primary .....	Mary E. Towle.....	900	{ 207
	Marcia E. Ridlon.....	800	
	Ida J. Holmes.....	750	
	Elizabeth J. Baldwin.....	700	
	Edith M. Carman.....	550	
	Christina R. Denyven.....	700	
	Florence E. Hunter.....	700	
	Alice E. May.....	700	
	Helen Montagne.....	700	
	Anna A. O'Connell.....	700	
	Ella M. Pinkham.....	700	
	Elizabeth Richards.....	700	
	Lucy M. Soule.....	700	
	Bertha J. Waldron.....	650	
	Mary E. Warren.....	700	
	Constance E. Yeames.....	500	
Otis, Primary .....	Ellen N. Leighton.....	785	282
	Frances Allen.....	700	
	Anna E. Callahan.....	700	
	Josephine M. Doherty.....	700	
	Nettie I. Haff.....	450	
	Luella M. Marsh.....	700	
	Anna N. Sullivan.....	700	
	Margaret Sullivan.....	700	
Parker, Primary.....	Mary A. Knowles.....	780	233
	Mattie S. Cutting.....	700	
	Harriet R. Harrington.....	700	
	Agnes Marchant.....	700	
	Mary E. Mullins.....	600	
	Mary E. White.....	650	
Peabody, { Grammar .....	Frederick S. Cutter.....	2,100	{ 365
{ Primary.....	Charlotte A. Ewell.....	900	{ 167

## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1906
Peabody, Continued.....	Mabel R. Coombs.....	\$800	
	Anna F. Bellows.....	750	
	Susan C. Allison.....	700	
	Katherine L. Carr.....	700	
	Ruth D. Foxcroft.....	600	
	I elen E. I azard.....	700	
	I da M. Holden.....	700	
	Martha A. Parker.....	700	
	Isadore M. Thompson.....	600	
	Dora Trefethen.....	700	
	Alice M. Tufts.....	700	
	Sylvia L. Williams.....	700	
Putnam, Grammar.....	Frederick B. Thompson.....	2,100	615
	James E. White.....	1,300	
	Maude M. Mixer.....	900	
	Eliza S. Paddack.....	800	
	Grace Clark.....	750	
	Mary A. Carmichael.....	700	
	Martha Chisholm.....	600	
	Anna L. P. Collins.....	700	
	Sarah M. Grieves.....	700	
	Hattie L. Jewell.....	700	
	Annie B. Josselyn.....	700	
	Nellie A. Kerrigan.....	600	
	Mary A. Macklin.....	650	
	Margaret F. O'Keefe.....	700	
	Annie A. Trelegan.....	700	
	Minnie F. Wilson.....	700	
Reed, Primary.....	Margaret T. Burke.....	770	173
	Elizabeth G. Nelligan.....	700	
	Julia A. Robinson.....	700	
	Clara W. Ruggli.....	700	
Riverside, Primary.....	Elizabeth A. Tower.....	770	181
	Amanda M. Alger.....	700	
	Mary A. Burke.....	700	
	Hattie A. Thayer.....	650	
Roberts, { Grammar.....	W. Mortimer MacVicar.....	2,100	{ 625
	Sara A. Bailey.....	900	
	Emily R. Pitkin.....	750	
	Susan M. Adams.....	700	
	Beatrice Bennett.....	550	
	Mary Blair.....	700	
	Elizabeth M. Breslin.....	700	
	Mary M. Brigham.....	700	
	Faith Foxcroft.....	550	
	Mary F. Hill.....	550	
	Susan L. Keniston.....	700	
	Evelyn B. Kenney.....	700	
	Marjorie H. Lenox.....	500	
	Ada M. Litchfield.....	700	
	Rose A. Murray.....	600	
	Ida G. Smith.....	700	
			{ 51

## TABULAR VIEW — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1906
Roberts, Continued.....	Gertrude A. White.....	\$550	
	Caroline M. Williams.....	700	
Russell, { Grammar.....	Arthur C. Wadsworth.....	2,100	{ 361
Primary.....	Mary S. Bingham.....	900	{ 105
	Carrie J. Allison.....	700	
	Fannie P. Browning.....	700	
	Ella E. Buttrick.....	700	
	Mary A. Connelly.....	700	
	Louise F. James.....	550	
	Anna M. Lyons.....	650	
	Louise I. MacWhinnie.....	600	
	H. Maud McLean.....	700	
	Edith M. O'Brien.....	550	
	Gertrude E. Russell.....	700	
Shepard, { Grammar.....	Evelyn J. Locke.....	1,000	{ 297
Primary.....	Mary F. Calnane.....	700	{ 99
	Florence M. Dudley.....	700	
	Alice M. Gage.....	700	
	Mary M. Gilman.....	700	
	Dora Leadbetter.....	600	
	Theresa H. Mahoney.....	700	
	Elizabeth J. O'Keefe.....	550	
	Ellen T. O'Keefe.....	700	
	Anna E. Welch.....	600	
Sleeper, { Grammar.....	A. Estelle Ingraham.....	1,000	{ 133
Primary.....	Emily Blisell.....	700	{ 164
	Butella E. L. Conland.....	700	
	Evelyn M. Dormer.....	700	
	Elizabeth O. Haynes.....	700	
	Melissa M. Lloyd.....	700	
	Margaret E. Quinn.....	700	
	Blanche C. Trefethen.....	700	
Tarbell, Primary.....	Emma J. Young.....	770	184
	Florence J. Alley.....	700	
	Carrie P. Pierce.....	700	
	Anna H. Welsh.....	700	
Taylor, { Grammar.....	Ella R. Avery.....	1,000	{ 113
Primary.....	Mary A. Boland.....	700	{ 264
	Bridget T. Boyle.....	700	
	Lillian M. Canty.....	700	
	Lillian W. Davis.....	650	
	Emily M. Dowd.....	500	
	Winifred B. Goodwillie.....	500	
	Cecelia F. Leahy.....	700	
	Mary A. Maguire.....	600	
	Eleanor M. Stevens.....	650	
Thorndike, Grammar.....	Ruel H. Fletcher.....	2,100	525
	Harriet A. Townsend.....	900	
	Lydia A. Whitcher.....	800	
	Laura A. Westcott.....	750	

## TABULAR VIEW — Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1908
Thorndike, Continued. ....	Flora E. Cooter .....	\$650	
	Jennie W. Cronin.....	650	
	Grace W. Fletcher.....	700	
	Faith Garland .....	500	
	Eulalia L. Herald.....	700	
	Lillian H. Kenney.....	700	
	Ethel M. McLeod.....	550	
	Margaret M. Mahoney.....	500	
	Ethel M. Plympton.....	700	
	Mabel A. Short.....	700	
Webster, Grammar .....	John D. Billings.....	2,100	781
	H. Herbert Richardson.....	1,200	
	Alice C. Philney .....	900	
	Martha N. Hanson .....	800	
	Ada A. Billings.....	750	
	Mabel T. Ashley.....	700	
	Charlotte M. Chase.....	700	
	Fanny F. Curtis.....	700	
	Susau I. Downs.....	700	
	Gertrude B. Juffy.....	700	
	Josephine Hills .....	700	
	Gertrude I. Johnson.....	700	
	Carolyn E. Mann.....	650	
	Nora P. Nason.....	650	
	Minnie V. Reid .....	700	
	Harriette E. Shepard .....	700	
	Jennie L. Upham.....	650	
	Katherine L. Wight.....	700	
Wellington, { Grammar... ..	Herbert H. Bates.....	2,800	{ 453
{ Primary....	Sarah J. Gunnison.....	1,000	{ 267
	Margaret Kidd .....	1,000	
	Mary I. Vinton.....	1,000	
	Carrie H. Stevens.....	900	
	Grace F. Chamberlain.....	700	
	*Ellen A. Sullivan.....	500	
	Training Class.....	8,092	
Willard, Primary .....	Katharine E. Hayes.....	810	524
	Agalena Aldrich.....	650	
	Elizabeth M. Crowley .....	700	
	Mary L. Doan .....	700	
	Ella F. Gulliver.....	700	
	Julia S. Gushee .....	700	
	Mary E. G. Harrington.....	700	
	Katherine M. Lowell.....	700	
	Mary A. O'ara .....	700	
	Annie M. Sands.....	500	
	Eliza D. Watson.....	700	
	Grace R. Woodward.....	700	
Wyman, Primary.....	Addie M. Bettinson .....	780	198
	Maria J. Bacon .....	700	
	Mary H. Brooks .....	700	

\* Clerk and Librarian.

## TABULAR VIEW — Concluded.

Names of Schools		Teachers	Salaries	No. of Pupils Dec. 31, 1906
Wyman, Continued.....		Georgianna P. Dutcher.....	\$700	
		Genevieve S. Flint.....	700	
Kinder- gartens	Boardman.....	Florence Rice.....	700	50
		Agnes M. Quinn.....	450	
	Corlett.....	Annie M. Dodd.....	700	42
		Fraunces W. Roberts.....	500	
	Gannett.....	Carrie E. Shepherd.....	700	43
		Marion L. Akerman.....	600	
	Gore.....	Selma E. Berthold.....	700	52
		Fredrica Mark.....	500	
	Houghton.....	Edith L. Lesley.....	700	62
		Olive M. Lesley.....	600	
	Lowell.....	*Melinda Gates.....	700	33
		Annie L. Crane.....	650	
	Merrill.....	Caroline A. Leighton.....	700	64
		Ethel M. Halliday.....	450	
	Parker.....	Leonice S. Morse.....	700	42
		Ida E. Ward.....	500	
	Peabody.....	Julia L. Frame.....	700	55
		Irene L. Phelps.....	550	
	Shaw.....	Harriette E. Ryan.....	700	61
		Gertrude M. Simpson.....	500	
Teachers of Sewing .....	Sleeper.....	Mabel S. Adams.....	700	49
		Caroline E. Simpson.....	600	
	Taylor.....	Mary F. Leland.....	700	43
		Anna D. Francis.....	500	
	Wellington.....	Gertrude M. Gove.....	700	54
		Carita B. Dixon.....	450	
	Willard, A. M....	Alice V. McIntire.....	700	52
		Lucy E. Whipple.....	550	
	Willard, P. M....	Jennie S. Clough.....	700	58
		Eva C. Katon.....	600	
Unassigned Teachers.	Wyman.....	Clara A. Hall.....	700	40
		Mary E. Valpey.....	450	
Teachers of Sewing .....		Agnes Gordon.....	700	
		Alice H. Nay.....	650	
		Nancy T. Dawe.....	650	
Permanent Substitute .....		Mary A. Driscoll.....	500	
Unassigned Teachers.				
High School.....		Emma A. Scudder.....	450	
Primary Schools.....		Sally N. Chamberlain.....	350	
		M. Elizabeth Evans.....	350	
		Mary E. Sawyer.....	350	

\* On leave of absence in accordance with Section 69 of the Rules of the School Committee.

DIRECTOR OF MUSIC — Frederick E. Chapman	\$2,000
ASSISTANT IN MUSIC — Annie R. Hooper	800
DIRECTOR OF DRAWING — Peter Roos	2,000
ASSISTANT IN DRAWING — Lucia N. Jennison	800
DIRECTOR OF NATURE STUDY — Sarah E. Brassill	1,000

DIRECTOR OF PHYSICAL TRAINING — Sara E. Boudren . . . . .	950
INSTRUCTOR IN PHYSICAL TRAINING IN THE HIGH SCHOOLS — Bessie W. Howard . . . . .	900
SUPERINTENDENT — William C. Bates . . . . .	3,500
SUPERVISOR OF PRIMARY SCHOOLS — Mary A. Lewis . . . . .	1,300
AGENT — Sanford B. Hubbard . . . . .	2,350
CLERKS — Althea B. Frost . . . . .	780
Sadie E. Kimball . . . . .	650
PORTER — John Lemon . . . . .	700
TRUANT OFFICERS — Lucian S. Cabot . . . . .	1,000
John Carmichael . . . . .	1,000
William H. Porter . . . . .	1,000
Thomas F. Riley . . . . .	1,000

## SUMMARY.

Number of pupils in the Latin School . . . . .	523
Number of pupils in the English High School . . . . .	634
Number of pupils in the Rindge Manual Training School . . . . .	438
Number of pupils in the Grammar Schools . . . . .	7,372
Number of pupils in the Primary Schools . . . . .	5,708
Number of pupils in the Kindergartens . . . . .	800
Total . . . . .	15,475
Number of pupils belonging to the public schools December 31, 1905 . . . . .	15,364
Increase of pupils, 1906 . . . . .	111
Increase of pupils, 1905 . . . . .	289
Increase of pupils, 1904 . . . . .	140
Increase of pupils, 1903 . . . . .	188
Increase of pupils, 1902 . . . . .	253
Increase of pupils, 1901 . . . . .	62
Increase of pupils, 1900 . . . . .	332
Increase of pupils, 1899 . . . . .	314
Increase of pupils, 1898 . . . . .	476
Increase of pupils, 1897 . . . . .	422
Increase of pupils, 1896 . . . . .	714
Average annual increase of pupils from 1896 to 1906 (inclusive) . . . . .	300

## COST OF INSTRUCTION.

Schools and Officers	Cost of Instruction	Average Number of Pupils	Cost per Pupil
Latin School .....	\$25,979 34	530	\$49 02
English High School.....	27,214 24	570	47 74
Rindge Manual Training School .....	29,705 66	440	67 51
Training School (Teachers).....	15,992 65	733	21 82
Grammar Schools (except Training School)	188,183 83	6,436	21 47
Primary Schools (except Training School)	93,403 25	5,456	17 12
Kindergartens .....	19,960 02	742	26 90
Directors of Drawing.....	2,811 33	....	....
Directors of Music .....	2,811 71	....	....
Director of Nature Study .....	1,000 00	....	....
Directors of Physical Training .....	1,778 58	....	....
Teachers of Sewing.....	1,915 25	....	....
Substitute Teachers.....	1,846 50	....	....
Superintendent .....	3,500 00	....	....
Supervisor of Primary Schools.....	1,300 00	....	....
Agent .....	2,175 00	....	....
Clerks .....	1,395 00	....	....
Porter .....	700 00	....	....
Truant Officers.....	4,014 00	....	....
Unassigned Teachers .....	1,500 00	....	....
Tuition paid to Belmont for Cambridge pupils .....	156 66	....	....
Total .....	\$377,348 02	14,907	\$25 31

Cost of instruction in Evening Drawing Schools . . . . .	*\$1,647 00
Cost of instruction in Evening High School . . . . .	1,830 00
Cost of instruction in Evening Manual Training School . . . . .	788 00
Cost of instruction in Evening Elementary Schools . . . . .	7,440 50
Total . . . . .	\$11,705 50

\* The Director of Drawing has charge of these schools. No part of his salary has been included in this amount.

## REMARKS ON THE STATISTICS.

The number of pupils registered in the day schools during the year ending June, 1906, was 16,740; the average number belonging was 14,907, and the average daily attendance was 13,855. In the per cent of attendance there has been an increase of one-tenth of one per cent. The number belonging to the schools in December, 1905, was 15,364; in December, 1906, 15,475, an increase of 111.

The cost of instruction, which includes the salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers, was \$377,343.02. The total cost of the day schools, which, in accordance with the statutory definition of the support of schools, includes the cost of instruction, text-books and supplies, incidental expenses, care of truants, care of schoolhouses, and the transportation of pupils, was \$464,529.43.

The registration at the evening schools during the school year 1905-1906 was 2,532, and the average attendance was 1,104. The total cost of these schools, which includes the salaries of teachers, the cost of text-books and supplies, fuel, light, and the salaries of janitors, was \$14,829.93.

While Cambridge expends a large amount for her schools, there are *two hundred fifteen* towns and cities in the State which make a larger expenditure in proportion to their wealth. In a list of the thirty-three cities, arranged numerically according to the percentage of their taxable property, appropriated to the support of public schools for the year 1905-1906, Cambridge is the *twenty-second*. In a list of the towns and cities of the State, arranged numerically according to the sum appropriated for each child in the average membership of the public schools, Cambridge is the *thirty-seventh*.

These statistics relating to the schools of the State are taken from the seventieth annual report of the secretary of the State Board of Education.

## TEXT-BOOKS AND SUPPLIES.

At a meeting of the Board in December the committee on supplies submitted a detailed report of the expenditures of that committee for the year. The report is as follows: —



In accordance with Section 30 of the Rules of the School Board, the committee on supplies submits its twenty-second annual report, it being for the year ending July 1, 1906:—

Stock in storeroom July 1, 1905 . . . . .	\$7,209 29	
Expended from the appropriation . . . . .	22,677 57	
Value of exchanges . . . . .	638 44	
		<u>\$30,525 30</u>
Distributed to schools, officers, etc. . . . .	\$23,119 85	
Sold for cash . . . . .	263 07	
		<u>23,382 72</u>
Stock on hand July 1, 1906 . . . . .		<u>\$7,142 58</u>

The purchases and expenditures appear in detail as follows:—

For text-books . . . . .	\$9,754 83	
Desk and reference books . . . . .	271 98	
Copy books . . . . .	731 04	
Apparatus and furnishings . . . . .	1,712 49	
Diplomas, \$238.42; printing, \$184.00 . . . . .	422 42	
Repairing books, \$426.27; tuning pianos, \$40.75 . . . . .	467 02	
Expressage and labor . . . . .	459 81	
Miscellaneous supplies . . . . .	9,496 42	
		<u>\$23,316 01</u>
Less the value of exchanges . . . . .	638 44	
		<u>\$22,677 57</u>

The net cost of text-books and supplies is as follows:—

Stock on hand July 1, 1905 . . . . .	\$7,209 29	
Bills paid by City Treasurer . . . . .	22,677 57	
		<u>\$29,886 86</u>
Stock on hand July 1, 1906 . . . . .	\$7,142 58	
Cash paid to City Treasurer, sales and damages . . . . .	737 83	
		<u>7,880 41</u>
We have, net cost of all schools and officers . . . . .		<u>\$22,006 45</u>

or an average cost per pupil of \$1.476. The average cost per pupil for twenty-two years is \$1.291.

The annual cost per pupil for text-books and supplies since the introduction of free text-books is as follows:—

Year	Cost per Pupil	Year	Cost per Pupil	Year	Cost per Pupil
1885	\$1.880	1893	\$1.109	1901	\$1.203
1886	1.170	1894	1.243	1902	1.400
1887	1.051	1895	1.152	1903	1.306
1888	1.068	1896	1.436	1904	1.468
1889	0.960	1897	1.094	1905	1.434
1890	1.334	1898	1.268	1906	1.476
1891	1.248	1899	1.225		
1892	1.149	1900	1.740		

The cost of each grade of schools for text-books and supplies is as follows:—

	Net Expense	Cost per Pupil				
		1906	1905	1904	1903	1902
Latin School.....	\$1,608 82	\$3.086	\$3.182	\$3.177	\$3.463	\$3.990
English High School....	2,522 12	4.425	3.356	4.153	3.564	3.641
Manual Training School..	4,258 70	9.679	10 014	9 836	16.791	11.564
Training School, Teachers	825 23	1.126	.964	1.042	.664	.707
Grammar Schools.....	5,017 32	1.343	1.258	1.397	1.070	1.152
Mixed Schools.....	4,581 98	.981	1.153	1.342	.907	1.140
Primary Schools.....	1,767 65	.508	.433	.441	.379	.528
Kindergartens.....	366 40	.494	.637	.422	.428	.630
Evening Schools.....	396 95	.....	.....	.....	.....	.....
Vacation Schools.....	31 31	.....	.....	.....	.....	.....
Special Teachers.....	66 73	.....	.....	.....	.....	.....
Officers of Board.....	80 76	.....	.....	.....	.....	.....
Miscellaneous expenses (not chargeable to any grade).....	503 97	.....	.....	.....	.....	.....
	\$22,027 94	.....	.....	.....	.....	.....
Less profit on sales.....	21 49	.....	.....	.....	.....	.....
	\$22,006 45	\$1.476	\$1.484	\$1.468	\$1.306	\$1.400

A comparison of the foregoing tables with those submitted by your committee last year shows an increase of \$1,056.64 or \$0.042 per pupil in the cost of books and materials purchased during the year ending last June. This increase is largely in the purchase of books to complete the introduction of geographies authorized three years ago, and to furnish new books authorized for the high schools.

It is inevitable that the cost of the schools per pupil, as well as in the aggregate, will increase as changes in the courses of study and improvements in instruction require a greater variety of materials and illustrative apparatus. The expenditures for the year 1906-1907 will be much larger than for the past year.

The unusual expenditures for the next year will be for new books in the three high schools; for typewriting machines, electrical apparatus and additional tools in the Rindge Manual Training School; for the completion of the introduction of music readers in the grammar schools, and for two sloyd equipments which have been desired for a long time. Bills are brought forward from the current financial year amounting to \$4,750.55.

The appropriation for equipment for the Rindge Manual Training School has been expended. There is still need of cabinets and drawers for the proper care and protection of the tools, and these should be supplied at once.

The committee cannot refrain from calling the attention of the Board to the faithful and valuable services of the agent. His care in the purchase and distribution of supplies undoubtedly results in a large saving to the city.

### CHANGES IN TEXT-BOOKS.

The following is the Rule of the School Board relating to the changes in text-books:—

“All propositions for changes in text-books shall be made by the superintendent. Whenever he recommends a change he shall appoint two persons, one of whom shall be a teacher in the service of the city, who shall make written reports on the merits of the books recommended. These reports and a like report by the superintendent shall be kept on file in the office of the superintendent, open to inspection by members of the Board only. All changes of text-books recommended to the Board shall be referred to the committee on text-books.”

Under this rule the following books have been recommended by the superintendent and the committee on text-books, and adopted by the Board:—

**FOR THE LATIN SCHOOL.** Lockwood and Emerson's Composition and Rhetoric in place of Lewis's First Book in Writing English; Benner's Selections from Homer's Iliad in place of Johnson's Homer's Iliad; Newell's Descriptive Chemistry; and Mellick's Latin Composition in place of Daniell's Exercises in Latin Composition.

**FOR THE ENGLISH HIGH SCHOOL.** Stebbins's Progressive Course in English in place of Lewis's First Book in Writing English; Hart's Essentials in American History in place of Johnston's History; and Williams and Rogers' Modern Illustrative Bookkeeping, Introductory Course and Advanced Course, in place of Schwartz's Office Routine and Bookkeeping.

**FOR THE RINDGE MANUAL TRAINING SCHOOL.** Scott and Denney's Elementary English Composition in place of Lewis's First Book in Writing English; Elements of English Composition by Gardiner, Kittredge and Arnold in place of Lockwood's Lessons in English; and Williams and Rogers' Modern Illustrative Bookkeeping, Introductory Course and Advanced Course.

**FOR THE GRAMMAR SCHOOLS.** The New Educational Music Readers and the Abridged Academy Song-Book in place of the New National Music Readers.

**FOR THE PRIMARY SCHOOLS.** The New Educational Music Chart. For use as desk and reference books: The Child's First Studies in Music, Songs of Nature, and Songs of the Child World, Nos. I. and II. The First National Music Reader has been dropped from the list of authorized text-books.

### SCHOOL ACCOMMODATIONS.

At a meeting of the Board in December, the committee on schoolhouses submitted a detailed report of the work of the committee for the year. The following is taken from that report:—

In accordance with Section 30 of the Rules of the School Board, the committee on schoolhouses respectfully submits the following as the annual report of the committee:—

In September, 1905, the attention of the city council was called a second time to the condition of the grounds around the Ellis schoolhouse, and a request was made that they be filled in and drained. This request was renewed June 18. During the summer a part of these improvements was made and the remainder is nearly completed.

On representations of members of this committee, the basement of the Russell schoolhouse was drained and the sanitary arrangements changed and improved.

At the meeting of the Board in December a request was made that land adjacent to the Taylor schoolhouse be purchased to protect the school against having the light cut off from some of the rooms by the erection of high buildings near the school, and at the last meeting of the city council this purchase was warranted, the price to be \$2,500.

At the same meeting a request was made that the old Gannett building near the Wellington School be replaced by an addition to the Wellington schoolhouse. An appropriation of \$48,000 has been made for this purpose. The walls are up and it is expected that the addition will be ready to be occupied by next September.

In accordance with requests of the committee, concrete sidewalks have been laid in the vicinity of the Washington building, improvements have been made at the Rindge Manual Training School, and the entrances to the Merrill schoolhouse have been fenced in.

The request that an addition to the Putnam schoolhouse be made was returned to the Board for more explicit information; and the request for an addition to the English High School building was refused by the city council.

The total expenditures for the care and repair of schoolhouses, except

those made under special appropriation for new work on school buildings, are as follows :—

Janitors' service . . . . .	\$40,497 75
Janitors' supplies . . . . .	2,398 00
Fuel . . . . .	15,339 60
Gas and electric lighting . . . . .	2,545 04
New furniture . . . . .	1,894 47
Repairs to buildings . . . . .	20,338 83
Repairs to furniture . . . . .	2,101 31
Repairs to heating and plumbing . . . . .	3,206 36
Sundry labor . . . . .	2,176 84
Total . . . . .	<u>\$90,497 70</u>

The buildings where a sum greater than five hundred dollars has been expended for improvements and repairs are :—

Latin School . . . . .	\$860 86	Parker School . . . . .	\$949 06
English High School . . . . .	955 00	Peabody School . . . . .	1,365 05
Rindge Manual Training . . . . .	1,874 28	Putnam School . . . . .	854 63
Agassiz School . . . . .	1,099 80	Riverside School . . . . .	685 69
Boardman School . . . . .	970 73	Roberts School . . . . .	670 21
Ellis School . . . . .	514 14	Russell School . . . . .	2,093 48
Fletcher School . . . . .	517 38	Shepard School . . . . .	1,782 85
Gannett School . . . . .	584 99	Sleeper School . . . . .	689 99
Gore School . . . . .	507 77	Taylor School . . . . .	499 98
Kelley School . . . . .	792 19	Webster School . . . . .	1,129 13
Lassell School . . . . .	774 93	Wellington School . . . . .	549 20
Merrill School . . . . .	894 50	Willard School . . . . .	663 52
Morse School . . . . .	620 04	Wyman School . . . . .	543 29

The Thorndike schoolhouse should be replaced by a modern building of sixteen rooms and a hall during the coming year; and in the near future a grammar schoolhouse should be built in the district south of Massachusetts Avenue and east of Pearl Street to relieve the Morse, Webster, Boardman, and Roberts schools.

#### JANITORS.

Section 31 of the city charter provides that "The mayor shall appoint the janitors of the schoolhouses, subject to confirmation by the school committee, and may remove them at pleasure for cause assigned; and such janitors shall perform their duties under the direction of the school committee."

Under the direction of the committee on schoolhouses the agent supervises and directs the work of the janitors, and reports to the committee such matters as need consideration. The principals of the schools report each month whether or not the work is done in a satisfactory manner.

The following is from the report of the committee on schoolhouses :—

The salaries of several of the janitors have been increased by order of His Honor the Mayor during the year. Generally the work of the janitors has been done in a satisfactory manner and spirit under the efficient supervision of Mr. Roach, the head janitor.

## LATIN SCHOOL.

The following table shows the membership of the Latin School and the cost of instruction from year to year for five years :—

December	Average Number of Pupils	Number of Teachers in December	Cost of Instruction	Cost per Pupil	Number of Graduates
1902	465	24	\$25,236 00	\$54 27	62
1903	474	23	25,472 00	53 74	49
1904	487	23	26,275 50	53 95	50
1905	531	24	26,711 51	50 30	70
1906	530	25	25,979 84	49 02	59

The cost of the Latin School to the city is less than the above sums by the amount received for the tuition of non-resident pupils. The amount received this year was \$888.

The course of study is arranged for five years, or for four years, and is almost wholly decided by the requirements for admission to Harvard University. Nine and two-tenths per cent of all the graduates have completed the work in four years. The following is the rule relating to the admission of pupils to the high schools :—

“Pupils who have received the diploma of a grammar school may, on recommendation of the master, be admitted to the Latin School, the English High School or the Rindge Manual Training School without an examination. For other persons who desire admission, an examination shall be held at the beginning of the autumn term under the direction of the superintendent, but pupils who are qualified to join existing classes may be admitted at any time on application to the principal. No pupil from any grade in a grammar school shall be examined who does not present a satisfactory certificate of having pursued the required studies during the summer vacation.”

From three-fourths to four-fifths of the graduates are usually recommended for admission without an examination. About one-half of the remaining part study during the summer vacation, as required by the rule, and take an examination in September. Pupils who pass a fairly good examination are permitted to attend the Latin School, the English High School or the Rindge Manual Training School until the Christmas vacation, at which time their connection with the school as regular pupils may end unless their work has been satisfactory.

Diplomas of graduation signed by the mayor and the head master of the school are awarded to pupils of the high schools who have successfully completed the course of study or its equivalent, and have sustained a good character.

For non-resident pupils the tuition is \$80 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A. M., and end at 1.30 P. M.

#### ENGLISH HIGH SCHOOL.

The following table shows the membership of the English High School and the cost of instruction for five years : —

Year	Average Number of Pupils	Number of Teachers in December	Cost of Instruction	Cost per Pupil	Number of Graduates
1902	498	24	\$26,747 51	\$53 71	86
1903	493	24	27,109 83	54 99	73
1904	556	24	27,070 83	48 69	76
1905	550	24	26,359 41	47 93	75
1906	570	25	27,214 24	47 74	74

This school has for its object the preparation of its pupils for entrance upon active life. It has three distinct courses of study. The plan of the courses is that all pupils in the school shall pursue substantially the same subjects for their first year, but thereafter shall have increasingly divergent studies, open to choice within reasonable limitations and determined largely by aptitude and expectation of subsequent career.

The general course provides a broad, liberal training for boys and girls who expect to end their academic education with the high school, and includes all subjects which are required for preparation to enter the State normal schools. All who propose to become teachers in grammar or primary schools should take this course.

The commercial course is designed to combine with studies which cultivate the mind in a broad way, certain others which give special power needed in business life. Bookkeeping and business correspondence are provided in the first year, advanced bookkeeping in the second year, commercial law in the third year, shorthand in the third and fourth years and typewriting in the second, third and fourth years.

The domestic science course is intended for those girls who, while gaining culture of mind, wish also to train the hand in arts that are needed constantly in the home. In the second year they work in wood with tools suitable to their strength. In the third year they learn cooking by theory and practice. In the fourth year they continue their cooking, and deal with the preserving of fruits, with sanitation, and with other problems of household economy.

The requirements for admission to this school and the rule relating to the granting of diplomas are the same as for the Latin School.

For non-resident pupils the tuition is \$80 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A. M., and end at 1.30 P. M.

#### RINDGE MANUAL TRAINING SCHOOL.

The following table shows the membership of the Rindge Manual Training School and the cost of instruction from year to year for the past five years:—

Year	Average Number of Pupils	Number of Teachers in December	Cost of Instruction	Cost per Pupil	Number of Graduates
1902	242	15	\$19,108 67	\$78 96	23
1903	262	16	21,125 50	80 63	38
1904	315	19	23,167 16	73 55	30
1905	396	22	26,487 00	66 89	32
1906	440	22	29,705 66	67 51	45

The cost of the Rindge Manual Training School to the city is less than the above sums by the amounts received from Harvard University for the instruction of a class of students during the summer vacation, and for the tuition of non-resident pupils. The amount received this year from both sources was \$4,220.

The course of instruction covers four years. Proper emphasis is given to the academic features of the course, and the work is made interesting and effective by bringing it into intimate relation with instruction in the mechanic arts.

The manual dexterity and the thorough knowledge of tools, machinery and mechanical processes acquired in the shops, at an age when time can be most easily spared for such training, is of inestimable value in any scientific pursuit.

The sessions are five and one-half hours a day, instead of five as in the other high schools. About one-third of the time is given to the work of manual training, and the remainder to the subjects usually taught in high schools, with the exception of Latin and Greek.

The requirements for admission to this school and the rule relating to the granting of diplomas are the same as for the Latin School.

For non-resident pupils the tuition is \$150 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A. M. and end at 2. P. M.

The following is from the report of the committee on high schools:—

The number of pupils in the high schools continues to increase from year to year. The total number registered in the Latin School from the



beginning of the fall term to the time of writing this report has been five hundred forty-five. The opening of the school in September marked a period of half a century in which Mr. William F. Bradbury has acted either as teacher or master in our high schools. It is in a great measure due to his ability and efficiency that the Cambridge Latin School has come to be one of the leading classical preparatory schools in this country.

The resignation of Mr. Theodore P. Adams, who has been an efficient teacher in the school for the past thirty-six years, has been accepted. At the present time there is one more teacher than last year, and by this means provision is made for more individual work with backward pupils.

At the meeting of the school committee in May it was voted that, with the consent of the trustees of the Charity of Edward Hopkins, a prize be awarded to a girl in the graduating class of the Cambridge Latin School under the same conditions and at the same time that a prize is awarded to a boy in the graduating class. Under this agreement the prizes were awarded to Ruth Noella Carter and Frederic Hilborn Hall. Eight boys have availed themselves of the free tuition which the Hopkins Fund provides.

The total registration in the English High School from the opening of the school to the present time has been six hundred sixty-four, the largest number ever registered in this school in any one year. This is due mainly to two reasons, a large senior class and a very large entering class. While the senior class for the next two years will not be as large as the present one, the entering classes will no doubt continue to become larger from year to year as the population of the city increases and as the commercial course gains in popularity. The total number of girls on the first of December was five hundred eighty-three and the total number of boys was fifty-one. The number of girls registered in the entering class was two hundred thirty-three and the number of boys was seventeen. This is an increase of seven boys over the number in the entering class last year, but in spite of this fact the total number of boys in the school is smaller than ever before.

The added work caused by the changes in the commercial course has made it necessary to employ one more teacher. This in turn has called for a larger number of rooms for recitation purposes, and has made it necessary to transfer the classes in harmony and counterpoint to the Latin School.

The popularity of the commercial course is manifested by the large number of pupils in the entering class taking this course. Of the two hundred fifty pupils in this class, one hundred eighty-eight, or seventy-five per cent, elected the commercial course. This is a larger proportion than has been customary, although the commercial course calls for more

recitations per week than either the general course or the domestic science course. The introduction of still more work in commercial subjects next year, as laid out in the course of study, with the added increase in the number of pupils entering this school, will require more rooms, particularly for classes in typewriting. Additional equipment for bookkeeping classes will be required and another teacher of commercial subjects will probably be needed.

Three years ago instruction in dressmaking was made a part of the course in domestic science, but on account of lack of suitable accommodations it has been impossible to give instruction in this subject. About thirty pupils have expressed a desire to take this course the present year.

It will be remembered that within the past year efforts were made by this Board to obtain action by the city government for an enlargement of the English High School building in order to provide adequate accommodations for the increase in numbers, and for the equipment for commercial work. The experience of the year has emphasized the need of an addition to this building.

The head master reports that a change has been made this autumn in the practical operation of the plan by which the educational department of Harvard and Radcliffe colleges coöperate with the English High School in the use of student helpers in the school. For several years a limited number of students have come into the school about the first of March to take for an hour each day classes of deficient pupils in French, Latin, or algebra, thus relieving the regular classes of the most backward pupils, and preparing them to do more efficient work in the year following. The present year these student helpers have come into the school in December. Each of them is assigned to a particular teacher, works under her direction, and renders to her such assistance as is needed. For a month or more the student helper will be present at the recitations as an observer. Subsequently the helper will, in the presence of the regular teacher and under her direction, conduct a part of the recitations. The student helper will assist the teacher in connection with the regular work by rendering assistance in laboratory work and in such other ways as may be of use to the school. The objects to be attained by this arrangement are the training of the student helpers through observation and practice on the one hand, and on the other the relief of the teachers from certain details without loss to the pupils. A further benefit is returned in the permission which both Harvard and Radcliffe give for taking courses in the colleges without pay, by as many teachers as there are student helpers received into the school. At present six such student helpers are at work in the school, two in English, two in algebra, one in German, and one in chemistry. Two others are sought for, but have not yet been found available, one in physics, and one in bookkeeping.

The instructor in physical training in the Latin and English High schools reports that the number of girls taking the work has increased, the number registered this year being five hundred twenty, fifty-three more than last year. All of the girls taking the work are examined and measured at the opening of the schools in September and at the close in June, and throughout the course in the school a record is kept of the progress made by each pupil.

The experience of another year emphasizes the need of a proper equipment for the gymnasium. The work of the instructor is hampered and the benefit to the pupils is limited because we lack such apparatus as is usually provided in a school gymnasium.

The total number of boys registered in the Rindge Manual Training School from the opening of the school to the present time has been four hundred sixty-seven. It is too early to make any statement as to the popularity of the commercial course which was introduced at the opening of the school in September, as the studies in all three courses for the entering class are the same. During the past year the foundry has been equipped and the Rindge Manual Training School has begun to feel the effects of its improved facilities for work. With a very few improvements, Cambridge will have an excellent equipment at this school. This committee would call the attention of the Board to the necessity of having an appropriation for the purchase of typewriters to be used in the commercial course at the opening of the school next September. The head master advises the equipment of a third laboratory in the science building to be used exclusively for classes in electricity.

#### REPORT OF THE SPECIAL COMMITTEE ON ATHLETICS.

At a meeting of the Board in October, the following recommendation was adopted:—

“The committee on high schools recommends that Mr. Joseph E. Sharkey, a member of the committee on high schools, be appointed the authorized representative of the school committee for the supervision and control of the athletic organizations composed of pupils of the public schools, as provided by Chapter 251, Acts of 1906.”

The report of Mr. Sharkey is as follows:—

Your committee has spent much time in considering the question of athletics in the Cambridge schools, and has dwelt upon it from many viewpoints. First of all, it was recognized that civic control of athletics might easily degenerate into civic destruction and operate injudiciously rather than wisely. In other words, the question must be dealt with sympathetically and at the same time, gradually, for the essence of true athletic

sport is found in the enthusiasm and patriotic determination for victory, which spurs the boy to higher physical fitness. Limited always by harsh and imprudent regulations, these ideal sentiments easily might not only be smothered, but eradicated altogether.

The committee called a meeting of the boys in the three high schools who were active in the athletic interests, together with the head masters of the high schools and the superintendent of schools. The entire athletic question was discussed with freedom, intelligence and candor, and as a result both the pupils and the representatives of the school board reached a truer conception of the athletic question. This and other meetings showed very clearly that the athletics need to be systematized in the high schools and need to have some responsible directing authority, who could be with the boys in their many games, arrange their athletics in a systematic manner, serve as an agent of the school committee who would fulfil its ideas with tact and understanding, and who would at the same time receive the respect of the pupils. More than this, the athletic director or physical supervisor could act as gymnastic director in the high schools and encourage a greater attention to the physical development among all male pupils. This in itself is a thing to be desired. Your committee has recommended to the committee on high schools the appointment of a physical director for the boys.

New rules have been prepared to govern athletics in the high schools, and these meet with the approval of both the head masters and the pupils. They have been arranged with especial reference to preserving the athletic spirit and an earnest coöperation between authority and the pupils.

Your committee believes that the great need is the construction of a gymnasium building near the high schools, open under proper restrictions to the school children of the city. Such a building could be erected near the Rindge Manual Training School and partly on land which the city now owns. This building might be so erected as to contain also a power plant to generate heating and lighting power for the public buildings in its vicinity. The boilers in some of the buildings are becoming useless and the problem of heating the high schools must soon be met. The construction of a building for a gymnasium and a power house has the approval of the superintendent of public buildings, and your committee earnestly recommends its early consideration by this Board. It might be found advisable to construct two separate buildings. If a gymnasium cannot be built, the gymnasium in the basement of the Latin School should certainly be supplied with apparatus.

The civic control of athletics begins apparently under auspicious and favorable circumstances and there is no reason to suppose that with con-

stant care and mutual coöperation it cannot work to the better interests of athletics and to the higher development of school life.

### MANUAL TRAINING IN OTHER SCHOOLS.

The statutes require that every town and city of twenty thousand or more inhabitants shall maintain, as part of both its elementary and its high school system, the teaching of manual training. The Rindge Manual Training School gives the required instruction to boys of the high school grade, and provision is made in the English High School for girls of this grade, sloyd being taught in the second year, and cooking in the third. Sewing in the grammar schools may be considered as meeting the requirements for the girls in the grammar school grades.

The requirement that manual training shall be taught in elementary schools as well as in high schools has not been fully complied with. Provision has been made for the teaching of this subject in only two of the grammar schools during the past year, the Putnam and the Roberts, these being the only schools which have manual training equipment.

In the Putnam School instruction in manual training has been provided for five classes of boys from two eighth and two ninth grades, and in the Roberts School for three classes from one eighth and two seventh grades.

The course, which is followed yearly with only such changes as seem necessary, is based largely upon the Swedish system of sloyd as adapted to American schools and it provides a carefully graded series of wood-working exercises of a more or less elementary nature in the seventh grade and the first half of the eighth, from which period the work increases in difficulty in direct proportion to the fitness and preparation of each individual pupil. The manual training work accomplished by the ninth grade usually includes some simple forms of book-shelves, tabourets, tables, etc.

The superintendent hopes that in the near future provision will be made for the teaching of manual training in all the grammar schools, as required by statute. The work of manual training in all the schools is under the direction of the head master of the Rindge Manual Training School.

### WELLINGTON TRAINING SCHOOL.

This school was opened in September, 1884, and differs from the other schools in this respect,— all the grades, except the eight and ninth, are taught by young teachers. Their work, however, is done under the immediate supervision of a master and three assistants, who are held re-

responsible for the instruction and management of the school. For several years the seventh grade has been taught by a graduate of the training class.

The object of conducting a school on this plan is to give Cambridge young women who desire to teach, and who have made special preparation for the work, an opportunity to gain experience under conditions favorable to their own success, and without prejudice to the interest of their pupils.

Graduates of the English High School or of the Latin School, who have also graduated from one of our State normal schools, are preferred candidates for the position of teacher in this school. Other persons of equal preparation may be appointed.

The required term of service is one year. Teachers are appointed on probation, and may be excused or dismissed at any time by the superintendent, with the approval of the committee on the training school.

No teacher is considered a graduate of the school until by vote of the training school committee she is admitted to the graduate class, which is known as class B.

The money compensation for the first three months, and until satisfactory service is rendered, is at the rate of two hundred dollars a year. For the remaining part of the year it is at the rate of two hundred fifty dollars.

Graduates temporarily employed as teachers in this school are paid the rate of three hundred dollars a year. Graduates selected to act as substitutes in any school are paid at the rate of four hundred fifty dollars.

That the direct influence of the school may be continued, it is the duty of the master, or of one of the supervising teachers, occasionally to visit the schools of the graduates who are teaching in Cambridge. The school contains all the grades of the grammar and primary schools and a kindergarten.

By the Rules of the School Board the superintendent is authorized to employ as many substitutes and temporary teachers as may be necessary to take the places of absent teachers. These teachers are usually assigned to the Wellington School, when not otherwise employed, that there may be at this school a sufficient number of teachers to make it practicable for the members of the training class to visit other schools.

The Wellington School is working under great disadvantages this year while the building is in process of reconstruction.

The addition will contain six schoolrooms, and the alterations will provide much better facilities for administration, supervision and conference.

The new hall will be adequate for the use of the school, for lectures, for meetings of parents, and for other educational activities.

### GRAMMAR SCHOOLS.

The number of pupils in these schools on the first of December was seven thousand three hundred seventy-two, and the number of teachers, including the masters and special teachers, was one hundred ninety-nine.

The cost of instruction for each pupil for the year has been \$21.47. This does not include the cost of supervision or the cost of the Wellington School.

For non-resident pupils the tuition is \$30 a year, payable one-half at the beginning, and the other half at the middle of the school year.

The course of study is for six years, but the schools are so classified as to give the pupils an opportunity to complete the course in four years, or in five years. The average age of those who entered the grammar schools last September was nine years seven months. The number of graduates in June was seven hundred thirteen, their average age being fourteen years nine months. Of these, 6 per cent completed the course in four years, 27 per cent in five years, 51 per cent in six years and 16 per cent in seven years or more.

Pupils are promoted by classes from the primary schools at the beginning of the autumn term; but individual pupils may be promoted at other times, if it is deemed expedient by the supervisor of primary schools and the superintendent.

Promotions from grade to grade in the grammar schools, and from the grammar to the high schools, are made by the teachers under the direction of the masters and the superintendent. Pupils qualified to join existing classes may be admitted at any time on application to the master of the school. No regular preannounced examinations are held in these schools, but the results of such written exercises and reviews as the teachers and masters may require from time to time may be used as a part of the basis of promotion.

The thoroughness with which the work is done in the grammar schools is shown in part by the ability of the pupils to do the work in the high schools. The pupils are admitted to the high schools on trial; and, by the rule of the high school committee, any pupil who fails to maintain a suitable rank is reported to that committee, and no pupil thus reported can continue in either high school, except by special vote. For the past five years, however, provision has been made by which pupils in the entering class, whose record at the time of the Christmas recess was such that promotion at the end of the year would be impossible, have been allowed to remain in the English High School and receive such instruction as would best fit them to enter again upon the regular work of the school at its reorganization in September. A similar provision was made at the Latin School last year.

In the grammar schools, special teachers are appointed to help such pupils as seem able to do the work in less than six years, and to aid those who without personal instruction would require more than six years. This action of the committee removes the most serious objection to the accelerated system of schools.

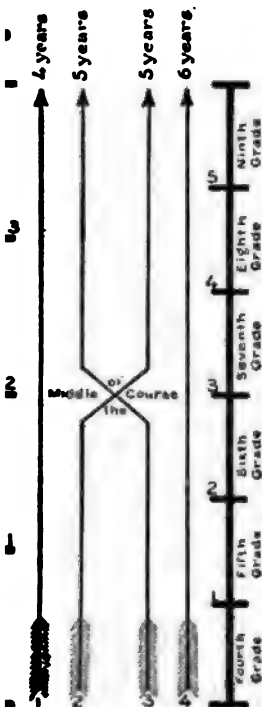
The course of study is divided in two ways: (1) into six sections; (2) into four sections; each section covering a year's work. Pupils taking the course in six years are classified in six grades, called the fourth, fifth, sixth, seventh, eighth, and ninth grades. Those taking it in four years are classified in four grades, called grades A, B, C, and D. When pupils are promoted to the grammar schools they begin the first year's work together. After two or three months they are separated into two divisions.

One division advances more rapidly than the other, and during the year completes one-fourth of the whole course of study. The other division completes one-sixth of the course.

During the second year the pupils in grade B are in the same room with the sixth grade. At the beginning of the year they are five months

(one-half the school year) behind those in the sixth grade. After two or three months grade B is able to recite with the sixth grade, and at the end of the year both divisions have completed one-half the course of study—the one in two years, and the other in three years. The plan for the last half of the course is the same as for the first half, the grades being known as the seventh, eighth, and ninth in the one case, and as C and D in the other.

There are also two ways of completing the course in five years: (1) any pupil who has completed one-half the course in two years may, at the end of that time, be transferred to the seventh grade, and finish the course in three years; (2) any pupil who has completed one-half the course in three years may, at the end of that time, be transferred to grade C, and finish the course in two years. In both cases these changes can be made without omitting or repeating any part of the course.



Arrow No. 1 indicates the four years' course; grades A, B, C, D. Arrow No. 2 indicates one the five years' courses; grades A, B, 7, 8, 9. Arrow No. 3 indicates the other five years' course; grades 4, 5, 6, C, D. Arrow No. 4 indicates the six years' course; grades 4, 5, 6, 7, 8, 9.



It is now fifteen years since the schools were first classified on this plan. During this time eight thousand seven hundred fifteen pupils have graduated from the grammar schools. Of this number, 7 per cent completed the course in four years, 29 per cent in five years, 49 per cent in six years, and 15 per cent in seven years or more.

Of the number who entered the Latin School from the Cambridge grammar schools during the past twelve years and remained a year, 14.9 per cent did the work in the grammar schools in four years, 43.1 per cent in five years, 39.1 per cent in six years, and 2.9 per cent in seven or more years. Of those who entered the English High School from the Cambridge grammar schools and took the general course and remained a year 8.7 per cent did the work in the grammar schools in four years, 35.8 per cent in five years, 44.7 per cent in six years, and 10.8 per cent in seven years or more; of those who took the commercial course, 8.0 per cent did the work in the grammar schools in four years, 32.4 per cent in five years, 51.0 per cent in six years, and 8.6 per cent in seven years or more. Of those who entered the Rindge Manual Training School from the Cambridge grammar schools and remained a year, 3.9 per cent did the work in the grammar schools in four years, 31.6 per cent in five years, 52.1 per cent in six years, and 12.4 per cent in seven years or more.

During the past twelve years more than 45 per cent of the pupils entering the high schools from the Cambridge grammar schools did the work in the grammar schools in less than six years, 36.4 per cent doing it in five years, and 9.4 per cent in four years. It does not follow, however, that because so many did the the work in less than the full time, that the plan is a good one. Its value is shown, rather, by the thoroughness with which the work has been done, not in one year only, but in a series of years. The results of the first year's work in the high schools would seem to be a test of this thoroughness. The records in these schools show that for twelve years the marks of the pupils who were four years in the grammar schools were higher than were the marks of those who were five years in the grammar schools; and that the marks of those who were five years in the grammar schools were higher than were the marks of those who were six years in the grammar schools.

The average per cents of the first year's work in the different high schools for twelve years are as follows:—

In the Latin School, the average per cent of the pupils who completed their grammar school course in four year is 80.0; of those who completed it in five years, 75.4; of those who completed it in six years 72.0.

In the general course in the English High School, the average per cent of the pupils who completed their grammar school course in four

years is 78.2; of those who completed it in five years, 75.8; of those who completed it in six years, 73.1.

In the commercial course in the English High School, the average per cent of the pupils who completed the grammar school work in four years is 73.2; of those who completed it in five years, 72.6; of those who completed it in six years, 70.2.

In the Rindge Manual Training School, the average per cent of the pupils who completed the grammar school course in four years is 71.2; of those who completed it in five years, 68.8; of those who completed it in six years, 67.8.

The following table will be of interest as showing the results of the first year's work in the high schools of the twelve classes from 1895 to 1906 inclusive:—

## IN THE LATIN SCHOOL.

RECORD OF TWELVE DIFFERENT CLASSES	FOUR YEARS IN GRAMMAR SCHOOLS	FIVE YEARS IN GRAMMAR SCHOOLS	SIX YEARS IN GRAMMAR SCHOOLS
First Year in High Schools	Average per cents in High Schools	Average per cents in High Schools	Average per cents in; High Schools
Class of 1895.....	78.7	78.9	76.4
Class of 1896.....	80.4	77.0	71.6
Class of 1897.....	79.3	72.5	66.9
Class of 1898.....	77.1	72.3	67.8
Class of 1899.....	80.0	73.0	61.8
Class of 1900.....	81.1	75.9	75.4
Class of 1901.....	79.6	75.2	70.1
Class of 1902.....	81.0	77.5	74.7
Class of 1903.....	83.0	79.1	74.7
Class of 1904.....	81.0	76.6	75.9
Class of 1905.....	78.2	77.8	73.5
Class of 1906.....	79.0	70.6	70.1

## IN THE ENGLISH HIGH SCHOOL, GENERAL COURSE.

Class of 1895.....	77.3	76.2	73.4
Class of 1896.....	85.9	75.1	76.4
Class of 1897.....	79.7	78.7	72.2
Class of 1898.....	77.6	75.8	77.0
Class of 1899.....	75.6	75.1	69.1
Class of 1900.....	79.2	73.4	71.1
Class of 1901.....	72.8	75.2	73.2
Class of 1902.....	82.2	75.3	74.3
Class of 1903.....	86.6	77.0	72.7
Class of 1904.....	75.3	76.6	75.4
Class of 1905.....	76.7	75.3	74.0
Class of 1906.....	78.1	74.6	70.3

## IN THE ENGLISH HIGH SCHOOL, COMMERCIAL COURSE.

RECORD OF TWELVE DIFFERENT CLASSES	FOUR YEARS IN GRAMMAR SCHOOLS	FIVE YEARS IN GRAMMAR SCHOOLS	SIX YEARS IN GRAMMAR SCHOOLS
First Year in High Schools	Average per cents in High Schools	Average per cents in High Schools	Average per cents in High Schools
Class of 1895.....	73.7	73.5	69.8
Class of 1896.....	74.8	70.9	68.4
Class of 1897... ..	76.8	69.0	69.3
Class of 1898.....	75.7	73.8	69.5
Class of 1899.....	69.5	68.5	68.9
Class of 1900.....	69.2	73.6	72.5
Class of 1901.....	76.0	73.6	70.5
Class of 1902.....	74.9	75.5	73.3
Class of 1903.....	74.3	76.6	70.9
Class of 1904.....	72.7	73.1	69.6
Class of 1905.....	75.7	74.1	69.8
Class of 1906.....	68.7	70.9	70.1

## IN THE RINDGE MANUAL TRAINING SCHOOL.

Class of 1895.....	72.6	65.4	65.9
Class of 1896.....	79.3	63.5	65.2
Class of 1897.....	78.6	67.2	61.7
Class of 1898.....	81.7	69.5	68.9
Class of 1899.....	...	67.5	67.8
Class of 1900.....	72.6	69.6	68.0
Class of 1901.....	80.0	67.8	68.4
Class of 1902.....	80.4	71.9	69.2
Class of 1903.....	70.4	73.5	70.3
Class of 1904.....	76.2	71.6	68.7
Class of 1905.....	64.8	68.7	68.7
Class of 1906.....	53.2	66.3	66.3

The results already given are based on the first year's work in the high schools. For six years results have been obtained based on the full course in the high schools. During these six years, three hundred forty-six pupils have graduated from the Latin School. Of these three hundred forty-six, two hundred seventy-one were graduates of the Cambridge grammar schools. Of these two hundred seventy-one, fifty-one did the work in the grammar schools in four years, and their average per cent for the Latin School course was 81.5; one hundred forty-six did the work in the grammar schools in five years and their average per cent for the Latin School course was 76.5; seventy-one did the work in the grammar schools in six years and their average per cent for the Latin School course was 74.6; three did the work in the grammar schools in seven years and their average per cent for the Latin School course was 71.7.

During these six years, four hundred forty-three pupils have graduated from the English High School. Of these four hundred forty-three, three hundred sixty-six were graduates of the Cambridge grammar schools. Of these three hundred sixty-six, thirty-one did the work in the grammar schools in four years, and their average per cent for the high school course was 76.9; one hundred forty-six did the work in the grammar schools in five years, and their average per cent for the high school course was 76.2; one hundred sixty-five did the work in the grammar schools in six years, and their average per cent for the high school course was 74.5; twenty-four did the work in the grammar schools in seven years, and their average per cent for the high school course was 73.1.

### PRIMARY SCHOOLS.

The number of pupils in these schools on the first of December was five thousand seven hundred eight, and the number of teachers was one hundred forty-three.

The cost of instruction for each pupil for the year has been \$17.12. This does not include the cost of supervision or the cost of the Wellington School.

For non-resident pupils the tuition is \$20 a year, payable one-half at the beginning, and the other half at the middle of the school year.

The course of study is for three years. Children five years old are admitted to the first grade at the beginning of the school year and during the first week in March. Pupils qualified to join existing classes may be admitted at any time on application to the principal. At the present time, 39 per cent of the pupils are in the first grade, 32 per cent in the second, and 29 per cent in the third.

One thousand six hundred nine pupils were promoted to the grammar schools last June at an average age of nine years five months. Of these, 5 per cent completed the course of study in less than three years; 58 per cent in three years; 4 per cent in three and a half years; and 33 per cent in four years or more.

Promotions from grade to grade in the primary schools, and from the primary to the grammar schools, are made by the primary teachers, under the direction of the supervisor of primary schools and the superintendent. Promotions by classes are made annually at the beginning of the autumn term; but individual promotions are made at other times if it is deemed expedient by the supervisor of primary schools and the superintendent.

Pupils are promoted to the grammar schools on trial, and those who show by their work that they are unprepared are returned to the primary

schools on the approval of the supervisor of primary schools and the superintendent.

Once a month the teachers of each primary grade meet the directors of special studies and the supervisor of primary schools. These meetings are held in the English High School building on Wednesday afternoons, half an hour after the close of the schools. The work for the coming month is planned; criticisms and suggestions in regard to methods are made; and questions from the teachers are answered and discussed.

Occasionally specimens of written work from all the pupils are brought for examination. In this way the amount of work done in the schools is made somewhat uniform; new teachers are kept informed as to the requirements, and pupils lose less time when a change of teacher or school becomes necessary.

The supervisor of primary schools writes as follows:—

Perhaps the greatest gain during the year has been in the reading which has been improved in all three grades. Especially have the children gained in self-help and in power to read to themselves with enjoyment. This greater command of vocabulary has naturally led to smoothness, distinctness and good expression. This gain is due principally to the systematic and thorough manner in which phonics have been taught, and also to the very attractive readers with which all the grades have been supplied.

There has been a faithful effort made to teach the prescribed course in number; but the impression is general that more time has been taken for this subject in the lower grades than is advisable. The new desk books in number, which have been provided for each teacher, have made variety easier and more general.

More time is needed for oral and written language. This time might be obtained by shortening or narrowing the course in number for all the grades.

In view of possible changes in the course of study, these facts in regard to the present organization of the primary schools may be of interest: There are three grades corresponding to the first three years of school life after the kindergarten. In September the first grade is divided into two sections,—the first and the advanced first. The former section is composed of children who have just entered school, and the latter of those who entered the previous March and also such children, who through long absence or other causes, have failed to gain promotion to the second grade. These children do not repeat the whole of their first year's work, but are started as far along in the course as is possible.

Again the first grade is divided into at least three groups, and the

advanced first into two groups. Thus there are five groups where children entering from other places, or losing time through the year, may be placed to make up needed work. The teachers promote from a lower group to a higher whenever it is possible, leaving the last group small and giving it special attention. The first of March adds still another group which must be taught separately.

The second and third grades are each divided into two groups. The children are graded as closely as possible, and are promoted whenever they show ability to advance. In the third grade the lower group is given special help to enable it to cover all the work in the course while the higher group gets time for extra work. The teachers, always watchful for the opportunity, are able to shorten the time in the primary school for several of the children, and to help many of them to recover lost time.

To these groups the superintendent has now added another, composed of those who are two or three years older than the average of third grade children. It is hoped, by having small numbers in these classes, to enable some of the children to learn to speak English more quickly, and others to gain time in the grammar schools. The benefit to the regular third grades of having these older children removed was immediately apparent. The enthusiasm of the older children and their eagerness to do extra work promises well for the success of these special classes.

#### KINDERGARTENS.

The number of pupils in the sixteen kindergartens on the first of December was eight hundred, and the number of teachers was thirty-one.

The cost of instruction for each pupil for the year has been \$26.90. This does not include the cost of supervision.

To be eligible to a position in a kindergarten, a teacher must have had a course in a high school, a course in a kindergarten normal school, a year's experience in teaching either in a kindergarten or a primary school, and must be able to play the piano.

Students in kindergarten normal classes are given opportunities to observe during their two years' course, and are allowed one month's experience in the first primary grade, but it is not deemed expedient for them to observe after graduation.

Teachers in kindergartens are to use their afternoons in visiting the homes of their pupils, with a view of maintaining friendly relations with the parents and of securing regularity of attendance, except when the time is needed for preparation for their work, and they are to make reports on blanks prepared for this purpose.

The report of the committee on kindergartens calls attention to the large number of mothers' meetings held during the year. There were one hundred twenty-eight such meetings, an average of eight, or nearly one a month to each kindergarten. The talks given at these meetings covered a wide range of subjects, but the care and the training of young children were the principal subjects considered.

Much attention was given to the presentation and the discussion of ways to promote the physical well-being of the children, and there were talks upon the care of the eyes, the throat and the teeth.

These meetings were made a means of securing a better acquaintance between the mothers whose children were in attendance at the kindergartens, and also between the mothers and the teachers.

The kindergartners report that they have made two thousand eight hundred sixty-nine calls during the year, an average of one hundred seventy-nine to each kindergarten.

This friendly visiting tends to a good understanding between the homes and the kindergartens, and makes them unite in effective efforts for the good of the children.

The number of these schools is not equal to the demand, and the committee expresses the earnest hope that kindergartens may be opened in other sections of the city in the near future.

### SPECIAL STUDIES.

The committee on special studies has supervision of the instruction in nature study, drawing, music, sewing, and physical and industrial training in the grammar and primary schools.

The following is from the report presented by the committee to the Board at its annual meeting in December: —

In accordance with Section 30 of the Rules of the School Board, the committee on special studies respectfully submits the following as the report of the committee: —

The work of the committee has centered largely, if indeed not entirely, during the past year, about the question of music.

Early in the year the committee was impressed with the great need for a new system of music readers, as the books in use were unsuited to the growing importance of music in the schools and to the attention given to this subject by teachers and pupils. The committee spent much time in the investigation of various music courses offered for its examination, and, realizing that it must look forward to the needs of the schools for many years to come, sought to secure the very best system of readers. Eventually the committee by a unanimous vote recommended the intro-

duction of the New Educational Music Course to be used throughout the first eight grades, and the Abridged Academy Song-Book for use in the ninth grade. New music was also recommended for the high schools. The new books were furnished to the schools and undoubtedly will prove of great lasting value in the musical education of the pupils.

The committee notes with regret the resignation of Miss Georgia E. Martin, the assistant in music. Her work has been well and faithfully done and her resignation is a distinct loss to the schools.

The part that music plays in the general education of the child is rightfully held important in Cambridge, but the question is suggested as to whether more time should not be given daily to music in the various grades. An inquiry shows that Cambridge is devoting less time to music than other cities of the same or less population. Your committee suggests that the study of music has an ennobling influence upon the child and tends to emphasize the value of optimism and of a happy, joyful attitude towards life. We recommend that the special committee on courses of study consider the advisability of granting a longer period for music study.

The art study in the schools under the direction of Mr. Peter Roos has progressed satisfactorily. More attention than formerly has been given to pencil drawing in such exercises as drawing from common objects, plant form, fruit and vegetables, the designing of objects and the planning of rooms and ornamental gardens. Color harmony and the representation of objects has been studied in the grammar grades and in the English High School. The director of drawing has given one day in each week to advanced classes in the English High School, where about forty pupils are pursuing charcoal drawing and art color painting as an elective study.

Grade teachers as well as pupils have maintained a strong and steady interest in the art study throughout the year.

The object of the lessons in planning for ornamental gardens is to form a taste for attractive out door surroundings as well as the development of skill in designing. Members of the Cambridge Municipal Art Society have become interested in these particular art lessons, and desiring to encourage the efforts of the pupils have offered to present prizes, such as books, to the pupils doing the best work; this, of course, with the consent of the school committee.

The plan of the work in the department of physical training has not been materially changed during the year. The director of this department has made several requests for improvements, for help in the way of material, which will be taken up in due time by the committee.

Nature study has been carried on during the year by coöperation



between teacher and pupil. Something is being done in the study of animal life, especially in insect and bird life. This appears more suited to the needs and interest of the older pupils than the study of plant life exclusively. Still more might be accomplished by providing apparatus, including aquaria, for the study of water life. Stuffed birds would also be helpful. The agricultural and artistic instincts of the pupils have been awakened by home gardening. The idea already started of having home gardens should be developed. There is room for these gardens in many of the schoolhouse yards, and if the park department would put the soil in condition the pupils could take charge. They would undoubtedly derive much pleasure and benefit in the constructive work of gardening.

The directors of all the departments have labored zealously during the year and are to be commended for their efforts.

#### NATURE STUDY.

The work in nature study includes the study of plant and animal life with some study of minerals and of weather phenomena.

The study of plants was first undertaken, and still makes up the larger part of the work. The study of animal life consists mainly of lessons on insects and birds. The mineral work is confined to lessons on common metals and on building stones.

Plants are studied in grades one to four, inclusive; insects in grades one, two and four; birds in grade four; weather phenomena in grades one to three, inclusive; and minerals in grade four.

Specimens chosen for study are those in which the pupils have a present interest, and all work is based on present experience. It is kept well within the capabilities of the children, yet novel enough to require their best effort. Whenever it is possible, the nature study is made to correlate with the work in other branches.

The results sought are increasing knowledge of facts gathered by observation; familiarity with environment; and a growing sympathy with nature.

#### DRAWING.

The course of instruction in drawing in the primary and grammar grades includes form, color and designing.

The study of form (pictorial representation) is carried through all the grades upon a plan involving type solids and natural forms of leaves, flowers and fruit. Construction drawing of objects and of simple original ornaments is gradually developed by progressive exercises. Geometrical drawing is introduced in the sixth grade and continued through the advanced grades. Drawing from nature receives special attention during the spring and autumn months.

Color is studied in all the grades, colored tablets being used in the primary grades and water colors in the grammar grades. Harmony and mixing of colors are treated as a science in special exercises; while color skill is artistically expressed in original designs and in nature study.

In design, particular attention is given to subjects involving fundamental principles of symmetry, balance, etc., and to methods of working out simple, specific problems in construction and in decoration.

In the English High School, drawing is a required study the first year, and is carried forward upon a plan of which the following is an outline:—

Drawing from objects and from casts, drawing from nature of plant form, drawing to scale, designing (constructive and decorative), and color harmony.

Drawing, designing, or water-color painting, may be taken as an elective study after the first year. The course of lessons includes landscape, still-life and advanced designing.

In the English High School, the instruction in drawing is given by the director of drawing and his assistant. In the primary and grammar grades, it is given by the teachers under the supervision of the director and his assistant. In the Rindge Manual Training School, there are two teachers of drawing, one of mechanical drawing and the other of free-hand, and the work is done under their immediate instruction.

### MUSIC.

The New Educational Music Course is used by the regular teachers in the primary and grammar grades under the supervision of the director of music and his assistant. In the high schools the music is conducted by the director. Every pupil who is capable of learning to sing is required to give attention to the subject.

In the Latin, English High and Rindge Manual Training schools, forty-five minutes a week are given to the study of musical form and expression as found in choruses, quartettes, etc., from the standard oratorios and operas.

Elementary harmony, counterpoint and composition have been introduced as elective studies for the first and second classes, and boys as well as girls having a special aptitude for music naturally elect these studies, the only requisite being some knowledge of the pianoforte. Pupils of the fourth year in the English High School may elect harmony in place of astronomy, and those intending to go to a normal school are advised to take the course in harmony.

The students are instructed in scale formation, intervals, and a logical

and comparative view of all true chords, in order to give them the power to construct and resolve these chords for themselves.

The study of harmony is carried well into modulation, and the study of counterpoint is carried through the four simple orders or species, including both the major and minor modes. Harvard College has passed a vote allowing a knowledge of harmony and counterpoint to count in an entrance examination to both Harvard College and the Lawrence Scientific School, granting two points each to the subjects.

Two periods of fifty minutes each week are devoted to instruction, and occasionally the best compositions of the students are sung or played before the entire school, showing in this way the practical side of the work, which will prove an important factor in future teaching.

In the Rindge Manual Training School, the young men are taught to sustain their parts, without accompaniment, in compositions of four part harmony, (first tenor, second tenor, first bass and second bass) the music being selected and arranged for this purpose.

Fifteen minutes a day in the primary, and ten minutes a day in the grammar grades, are devoted to this study; and pupils in the grammar grades are taught to sing and sustain their parts in reading compositions in two, three and four parts.

Memorizing music is a feature in all the grades, including the high schools, and in all graduating exercises it is expected that the music by the pupils will be sung or played without notes. To this end rote singing in all the schools forms a part of the instruction in reading music.

#### PHYSICAL TRAINING.

The Ling system of physical training is used in the schools. Seven grades are regularly supervised, the classes of the eighth and ninth grades being visited by the director only when special request is made by their teachers.

The instruction is given daily by the regular teachers in their respective classrooms under the supervision of the director of physical training, who visits each class as often as time will permit, and who also meets the teachers for special instruction from time to time.

Daily in the grammar grades ten minutes are allowed and in the primary grades fifteen minutes. During the months of September, October, November, April, May and June, the primary classes have the privilege of outdoor recesses, while during December, January, February and March the time is spent in games and marching.

The essential aim of all the teaching in physical training is to make the period one of recreation and healthful exercise, thus counteracting in part the tendency to spinal curvature and flat chest caused so often by sitting so many hours a day at the school desk.

**SEWING.**

Sewing is taught to the girls of the three lower grades in the grammar schools, and to the boys of the fourth grade who desire the instruction, the regular teachers having charge of the work of the boys.

The following is the course in sewing: *Fourth Grade.* Running, basting, stitching, sewing on buttons, overhanding and making pin-balls. *Fifth Grade.* Hemming, gathering, stroking gathers, model apron, overcasting and model pillow-case. *Sixth Grade.* Buttonholes, darning on canvas, darning a thin place in stocking, darning a hole in stocking, and matched patching.

Forty minutes are given to the work once a week in each grade. Throughout the course great care is taken in securing the ends of the thread in beginning, joining and fastening off.

The first lessons in sewing are spent in learning the use of the thimble and needle, in threading the needle, making knots and fastening ends. Running stitches are made during this time on ruled pieces of cloth. Neatness is insisted upon from the beginning. Stamped patterns of stars or circles are worked in running stitches by the more forward. Then basting by measure is taught. Measuring cards are provided for this, and the stitches are made one-half inch in length, with spaces of one-eighth of an inch. All work is upon practice pieces with colored thread. The first piece has three lines for running stitches and two for basting.

The second practice piece is of double cloth and has two lines of basting. On this piece stitching is taught, the children imitating machine stitching as nearly as possible. Two lines are done by all, and four lines by the best sewers, who also stitch their initials in the center.

Buttons are brought from home for the third practice piece. Strips of cloth for this are basted by those who finish stitching before the others. The shoe button comes first as the simplest, then the two-holed button, then the four-holed.

The pupils who finish buttons first, baste strips for overhanding. This is the last stitch taught to this grade. Those who wish bring pretty pieces of cloth and make pin-balls. At the end of the year the boys take home all their work. The girls keep theirs for reference the next year.

The work in the fifth grade begins with folding and basting hems, the practice piece having a half inch hem on one edge, and a quarter inch hem on the other. Hemming is practiced until fairly well done, before beginning the model apron of calico, which is then hemmed on the sides and at the bottom.

In January the aprons are laid aside while gathering is taught. The rule for gathering is copied upon paper, and then practiced upon cloth, with attention to the proper position of the hands. Stroking the gathers

follows, and the new work is then applied to the model apron. The gathers are stitched to the belt, and the apron carefully finished.

Model pillowcases are given to those who have time to make them, which gives a little practice in overcasting.

Those who finish the year's work take home all the practice work of the two years.

During the first term in the sixth grade those who completed the fifth grade work are taught to make buttonholes, while the others finish their model aprons. After vacation all begin together upon darning on canvas. This being finished, they learn to run a thin place in stocking material, and then to darn a hole. When the darning is finished, buttonholes are taken up again, and then matched patching. Those who have time for extra work practice feather stitching.

#### EVENING SCHOOLS.

The following account of the evening schools is given by Mr. Sanford B. Hubbard, the agent of the school committee, who has the general supervision of these schools:—

There are now eight evening schools,—two drawing schools, one high school, one manual training school, and four elementary schools. In accordance with the Rules of the School Board, there are two terms of the evening schools. The first term begins on the second Monday of October, and continues every Monday, Wednesday and Friday evening until the end of the week before Christmas. The second term begins on the first Monday, Wednesday or Friday evening after the opening of the day schools in January, and continues thirty-five evenings. The sessions begin at half past seven o'clock and continue two hours. No session is held on the evening of a holiday, or during the vacations of the day schools.

The evening drawing schools are under the supervision of the director of drawing in the day schools. There are two of these schools, one for instruction in mechanical drawing, which occupies three rooms in the Washington building, and one for instruction in free-hand drawing, which occupies one room in the English High School building. In the Mechanical School two courses are provided,—a three years' course in machine drawing, and a three years' course in architectural drawing. In the Free-hand School provision is made for a three years' course in free-hand drawing. Diplomas are given to graduates of either course.

The Evening High School is held in the English High School building, and offers a three years' course of instruction in the following subjects: Arithmetic, bookkeeping, algebra, geometry, stenography, English composition, English literature, civics, history, Latin, French and German. Diplomas are granted to graduates of the three years' course.

The Evening Manual Training School is held in the Rindge Manual Training School building and offers courses in machine shop work, wood-turning, pattern-making and forging.

The evening elementary schools occupy rooms in four of the grammar school buildings, the Putnam, Roberts, Shepard and Webster. Reading, writing, arithmetic, geography, language, history and bookkeeping are taught in these schools in classes, so far as classification is possible, but a large part of the work is individual. No definite course is arranged, but an opportunity is offered to pupils to prepare to enter the Evening High School, and certificates are given to those who are qualified to begin work in that school. In addition to the subjects given above, classes in civil service, sewing, dressmaking, millinery, wood-working and mechanical drawing are formed when a sufficient number express an intention to take any one of these courses.

The following table shows the attendance at the evening schools for the year 1905-1906:—

	Number Registered	Average Attendance	Average No. of Teachers*	Average No. of Pupils to a Teacher	Number of Graduates
Mechanical Drawing....	144	55	5	11	14
Free-hand Drawing ....	76	39	2	19	5
High School .....	480	175	10	17	11
Manual Training School	50	33	2	16	.....
Putnam School.....	814	321	25	13	23
Roberts School.....	610	270	19	14	45
Shepard School.....	212	116	10	12	12
Webster School.....	196	95	7	14	10
Total .....	2,532	1,104	80	14	120

\* The principals and curators are not included in these averages.

The following table shows the cost of the evening schools for the year 1905-1906:—

	Cost of Instruction	Cost of Text-books and Supplies	Cost of Light, Fuel and Janitors	Total Cost	Cost per Pupil
Mechanical Drawing....	\$1,157 00	\$56 33	\$176 20	\$1,389 53	\$25 26
Free-hand Drawing ....	490 00	56 42	48 15	594 56	15 24
High School .....	1,830 00	168 42	529 66	2,528 08	14 45
Manual Training School	788 00	23 56	268 53	1,080 09	32 73
Putnam School .....	2,889 00	27 29	531 52	3,447 81	10 74
Roberts School .....	2,316 50	38 60	663 55	3,018 66	11 18
Shepard School.....	1,265 50	13 42	226 61	1,505 53	12 98
Webster School.....	969 50	12 91	283 26	1,265 67	13 32
Total.....	\$11,705 50	\$396 95	\$2,727 48	\$14,829 93	\$13 43

During the year 1905-1906 Cambridge maintained eight evening schools, occupying forty-eight rooms and employing eight principals and eighty teachers. The registration in these schools was one thousand four hundred eighteen males and one thousand one hundred fourteen females, a decrease of fifty-seven males and an increase of ninety-five females, — a net increase of thirty-eight. The average attendance was one thousand one hundred four, an increase of ninety-six.

At the opening of the schools in October the Mechanical Drawing School was transferred from the Central Square building to the Washington building. The registration at this school was one hundred forty-four, the largest in recent years, but owing to the fact that the classrooms were not properly lighted during the opening weeks of the term, the attendance fell off and the average was only fifty-five, the smallest for a number of years. The average cost per pupil was for this reason considerably increased. Excellent work was done, however, as was shown by the exhibition held at the end of the year, and fourteen pupils graduated, having completed the three years' course.

The average attendance at the Free-hand Drawing School was thirty-nine, about as usual. Five pupils graduated, and an exhibition of the work received deserved approval, especially the work from the "life model" which seems to have added much to the interest in this school.

The Evening High School continued its usual good work, having an average attendance of one hundred seventy-five with ten teachers. Eleven pupils received diplomas of graduation.

The Rindge Manual Training School was opened for evening work for the first time. The results were very satisfactory. Fifty students registered, maintaining an average attendance of thirty-three for the two terms. Two teachers, a curator and a tool-room boy were employed. Two classes were formed, one in wood-turning and pattern-making and the other in machine shop work. The attendance was regular and the interest deep. One of the lines of work was tool-making and many tools were made which have been used in the day schools. An exhibition of the work at the end of the year was very interesting. There were not enough applicants for work in the blacksmith shop to warrant opening it.

The average attendance in the elementary schools was eight hundred two, an increase of nearly one hundred. Sixty-one teachers were employed, averaging thirteen pupils to each teacher through both terms. Two characteristics of these schools this year have been the increase in the number of illiterate foreigners and the lively interest in the work in sewing, dressmaking and millinery. The several exhibitions at the end of the year attracted large numbers of visitors.

Not the least encouraging result of the evening schools has been the

spirit of fellowship and good-will which has been developed in the several districts. The suggestion that lectures and entertainments be provided in the schoolhouses has not been realized. The committee asked for an appropriation for this purpose which the city government has not seen fit to grant. It is to be hoped that the coming year will bring a change in this matter and that this means of education and of developing a healthy public spirit towards the schools and the city will be used here as it has been for several years in other cities.

#### VACATION SCHOOLS.

The vacation schools opened on Monday, July 9, in five school buildings, the English High, Putnam, Roberts, Shepard and Webster. There were two sessions of two hours each day, one class attending the first session, and another attending the second. Pupils of the grammar grades only were provided for, and all grammar pupils who applied were admitted.

The older pupils were given a choice of sloyd and drawing (one hour each), or of basketry, cooking or sewing (two hours each).

The younger pupils were given instruction in drawing, water colors, reading, writing, and in other subjects of an interesting and profitable character.

One thousand two hundred twelve pupils were registered, an increase of fifty-three over last year. The average attendance was seven hundred twenty-one, an increase of four. The following table shows the number registered and the average attendance in each subject:—

	Number Registered	Average Attendance
Academic .....	383	222
Basketry .....	103	56
Cooking .....	100	56
Sewing .....	315	218
Sloyd and Drawing .....	311	169
	1,212	721

A great many of the children ceased to attend before the end of the term, and this is especially noticeable among the older pupils who chose sloyd and drawing, cooking or basketry. The average attendance in these subjects was only a little over half of the number registered. The pupils who chose academic work or sewing show a better average attendance. More pupils can be taken care of at a slight increase in cost, but not all of even the third primary grade.



The cost of the schools was \$1,645.40 for salaries of teachers and janitors, and \$155.87 for supplies, a total of \$1,801.27, or of \$2.49 per pupil based on the average attendance.

The following table shows the line of work in each school and the number in attendance :—

School	Subject	Number Registered	Average Attendance
English High School.....	Academic .....	91	53
English High School.....	Basketry .....	103	56
English High School.....	Cooking .....	100	56
English High School.....	Sewing .....	66	33
English High School.....	Sloyd and Drawing.....	121	66
Putnam School .....	Academic .....	80	51
Putnam School .....	Sewing.....	60	52
Putnam School .....	Sloyd and Drawing.....	93	51
Roberts School.....	Academic ..	95	53
Roberts School .....	Sewing.....	68	41
Roberts School.....	Sloyd and Drawing.....	97	52
Shepard School.....	Academic .....	78	36
Shepard School.....	Sewing.....	71	43
Webster School .....	Academic .....	39	29
Webster School .....	Sewing.....	50	49
		1,212	721

#### SUMMER PLAYGROUNDS IN SCHOOL YARDS.

Mrs. Helen G. Brooks, the secretary of the committee in charge of the summer playgrounds, has furnished the following at the request of the superintendent :—

Last summer, for the first time, Cambridge had playgrounds in school yards. An appropriation of \$200 was made by the city and put into the hands of the park commission for the purpose of placing sand gardens in eight school yards. These were the yards of the Cushing, Felton, Gore, Lassell, Riverside, Sleeper, Tarbell and Taylor schools.

A committee of ladies, who had had experience in playground work, placed matrons in these yards for six weeks to superintend the play and manual work which took place there. In some yards the attendance was larger than in others, notably in the Gore, Lassell and Taylor, where the matrons had all the children that they could care for, and probably a greater variety of ages than in the other school yards. In the Taylor School the attendance the first week averaged seventy-five in the morning and over one hundred in the afternoon; toward the close of the term it was fifty in the morning and eighty in the afternoon. The attendance at the Gore and Lassell schools was very large. The attendance in other

yards varied according to locality. In every case it was large enough to justify the experiment.

It was soon discovered that the older children were happier if they had work as well as play. This was true of both boys and girls. They learned to sew, to make worsted reins, to dress dolls, to make and furnish a doll's house, to make scrap books, to braid bookmarks, and to embroider patterns stamped on cloth. There were many games played and books read while the little children played in the sand gardens.

The improvement in cleanliness and courtesy among both boys and girls was noticeable before the school yards were closed.

If the school yard playgrounds are continued they may become educational centers whose influence may be felt throughout the neighborhood among the older as well as the younger children.

#### THE PUBLIC LIBRARY AND THE SCHOOLS.

The English High School has a library of about three thousand volumes. The Latin School has only about one-third of this number. Comparatively few books of a miscellaneous character have been added to these libraries for several years, the public library meeting the demand for such books. The need of the schools is for books of reference and for sets of books for class study. The library at the Latin School will in future receive accessions from the income of the Hopkins Classical Fund.

The grammar schools, with the exception of the Morse and the Webster, are not supplied with books for general reading. These are obtained from the public library.

The number of books delivered at the schools from the public library has increased one-third the past year; the total number being twenty-four thousand four hundred ninety-two. By this means good reading has been made so accessible that, with a little advice and direction from the teachers, the children in the grammar grades have read many books that have supplemented the work of the schools, especially in geography and in history.

A series of meetings at the library for pupils from the ninth grade took place in January.

The pupils went by classes "for special instruction by the librarian, and the children's librarian, in the use of the card catalogue and of reference books as well as for an inspection of all departments of the library itself."

When an exhibit of book-binding processes and materials was shown at the library an arrangement was made with Librarian Ayer by which a committee, composed of two delegates from each grammar school, visited

the library for instruction by the librarian in the processes of book-binding with the exhibit as an object lesson.

The delegates were required to take careful notes and then report to the schools from which they were sent. After the delegates had made the reports many of the pupils were led to visit the exhibition and were able to make a profitable inspection of the materials shown, because the reports of the delegates had given them directions.

The monthly bulletins issued by the librarian have been of much use to the schools. The reading list on Benjamin Franklin in connection with the two hundredth anniversary of his birth; the list of recent books for older boys prepared especially for the pupils of the Rindge Manual Training School; the list of fifty recent books for older girls prepared for pupils of the Latin and English High schools are noted as samples of the kind of help the schools are receiving from the library.

#### TRUANT OFFICERS.

The city is divided into four districts and to each of these districts a truant officer is assigned. Among their duties are the following: To visit each school at least once a day, unless otherwise directed by the agent; to prevent children from loitering about the school premises; to notify the teachers of all cases of contagious and infectious diseases reported by the board of health; to attend the evening schools when so directed by the agent of the Board to assist in the preservation of order, and to visit places of business where children are employed, to see that none are employed unlawfully. They make all complaints at the district court for truancy, absenteeism, or school offences, attend the trials as witnesses, and take boys to the Middlesex County Truant School when they are sentenced.

By the Rules of the School Board the work of the truant officers is done under the supervision of the committee on schoolhouses; and under the direction of this committee, it is the duty of the agent of the Board to consider all cases of truancy, of persistent violation of the rules of the school, of juvenile vagrancy, of unlawful detention from school, of neglect by parents; and of any failure on the part of pupils or parents to comply with the Rules of the School Board or the public statutes relating to school attendance. It is also the duty of the agent to direct the officers to make complaints; to certify to the records in these cases when presented before the district court; and to exercise such supervision of the boys who are sent by the court from Cambridge to the truant school as may be allowed under the statutes.

The following is from the report presented to the Board by the committee on schoolhouses : —

Our four truant officers, Messrs. Cabot, Carmichael, Porter and Riley, have continued the same efficient service as in the past. The city is fortunate in having the service of these faithful men. The following is taken from the reports of the truant officers : —

Absences investigated . . . . .	12,713
Truants, first offence . . . . .	541
Truants, third offence . . . . .	127
Truants, fifth offence or more . . . . .	190
Complaints of truants and incorrigibles at court . . . . .	39
Truants and incorrigibles on probation by the court . . . . .	7
Truants and incorrigibles sentenced by the court . . . . .	32
Children found wandering about the streets not belonging to any school . . . . .	93
Such children sent to school . . . . .	63
Visits to mercantile or manufacturing establishments . . . . .	315
Children employed without certificates . . . . .	82

At the beginning of the year Cambridge had thirty-five boys at the Middlesex County Truant School. Thirty-two have since been sentenced; one who has been released has been returned; and twenty-one have been discharged, leaving forty-seven at the present time. The city has paid for the board, clothes, and schooling of these boys, \$2,317.15.

The school census was taken by the truant officers and their assistants and shows an increase over last year of forty-seven boys and twenty-four girls between the ages of five and fifteen years. The following is a summary of the school census for the year 1906 : —

Number of children in the city between five and fifteen, boys, 7,898; girls, 8,031 . . . . .	15,929
Number in public schools between five and fifteen . . . . .	12,572
Number in private schools between five and fifteen . . . . .	3,054
Number not attending school between five and seven . . . . .	147
Number not attending school between seven and fourteen . . . . .	45
Number not attending school between fourteen and fifteen . . . . .	111
Whole number not attending school between five and fifteen . . . . .	303
Number in the city between five and six . . . . .	1,637
Number in the city between seven and fourteen, boys, 5,617; girls, 5,699 . . . . .	11,316

The statistics of the private schools obtained by one of the officers show that there are eleven private schools, having three hundred forty-six pupils and receiving \$43,630 tuition money. The five parochial schools contain three thousand seven hundred twenty-two pupils, a total of four thousand sixty-eight pupils attending other than public schools.

**LICENSES FOR MINORS UNDER FOURTEEN YEARS OF AGE.**

A change in the law has placed in the hands of the school committee the granting of licenses to minors under fourteen years of age to engage in certain occupations. Licenses are granted under the following regulations of the school committee:—

**CITY OF CAMBRIDGE**

OCTOBER 18, 1906.

**IN SCHOOL COMMITTEE**

The following was adopted in accordance with Chapter 151, Section 17, Revised Laws, as amended by the Acts of 1906.

**REGULATIONS**

**SECTION 1.** No minor under fourteen years of age shall exercise the trade of bootblackening or sell or offer for sale any article, the sale of which is permitted in Section 15, Chapter 65, of the Revised Laws, in any street, shop, or public place in Cambridge, unless he has a license from the school committee to do so.

**SECT. 2.** Such licenses shall be granted only to boys of more than ten and less than fourteen years of age, who attend school regularly and punctually, and who are obedient to the rules of the school. An application for such license must be made by the parent or guardian on a blank furnished by the agent; and must include a certificate of the age, attendance, conduct and character of the boy, signed by his teacher and the principal of the school which he attends.

**SECT. 3.** A licensee must not exercise his trade or make any sales within fifteen minutes of the opening of the sessions of the school which he attends, or during school hours, or after 8 o'clock P.M., or on any electric car, or, on Sunday, within two hundred feet of any place of worship.

**SECT. 4.** No boy who uses profane, impudent, indecent, or violent language, who is dishonest, cruel to children or animals, or who uses cigarettes or tobacco in any form, shall be eligible to receive a license. Indulgence in any of these vices, or disregard of any city ordinance, or of any of these regulations, or of such others as the school committee may adopt, shall be sufficient reason for suspending or revoking a license. The agent shall have authority to suspend a license granted by the Board for disregard of the provisions of the license, and to prosecute in the court for violations of Section 1.

**SECT. 5.** When a license is granted, the licensee shall receive from the agent a badge provided for this service, which he must wear in plain sight whenever he shall exercise his trade or make any sales. He must

not lend or transfer his license or badge to any person, or furnish an unlicensed minor with papers or other merchandise to sell, and must exhibit his license for inspection whenever requested to do so by any officer of the city of Cambridge.

SECT. 6. Such license expires when the licensee reaches the age of fourteen years; and it may be suspended or revoked at any time for sufficient reason. In either case the license and badge must be returned to the agent.

SECT. 7. A fee of twenty-five cents shall be paid to the agent on the receipt of a license, and a deposit of seventy-five cents shall be made on the receipt of the badge. This deposit shall be returned upon the surrender of the badge in good condition. All fees and deposits received by the agent shall be paid to the city treasurer, and the agent shall keep a record of all licenses granted.

#### APPLICATION FOR LICENSE.

Cambridge,.....

To the School Committee of Cambridge:—

I,....., residing  
at.....  
Parent or Guardian of.....  
Residing at..... who was born  
at..... on the..... day  
of..... 189, request that he be granted a license  
to EXERCISE THE TRADE OF BOOTBLACKING, TO SELL NEWSPAPERS,  
PERIODICALS, ETC., TO SELL MERCHANDISE.

We both promise that the regulations of the School Committee  
relating to licensing minors shall be faithfully obeyed.

Signature of Parent or Guardian .....

Signature of Minor.....

..... School.

According to the school records.....

was born the..... day of..... 189

His attendance is.....

His deportment is.....

His character is.....

..... Teacher.

..... Principal.

## MINOR'S LICENSE.

## CITY OF CAMBRIDGE



## SCHOOL DEPARTMENT

Cambridge,.....19

Minor's License — Number.....

In accordance with Chapter 151, Section 17, Acts of 1906, the School  
Committee of Cambridge hereby grants to

.....  
the right to exercise the *Trade of Bootblackening* or to *Sell Newspapers,  
Periodicals, etc.*, subject to the foregoing regulations.

*The School Committee of the City of Cambridge.*

by..... Agent

The number of the badge accompanying this license is.....

## CONTAGIOUS DISEASES.

The following act relative to school physicians and to testing the sight and hearing of pupils in the public schools, was passed by the legislature in 1906:

SECTION 1. The school committee of every city and town in the Commonwealth shall appoint one or more school physicians, shall assign one to each public school within its city or town, and shall provide them with all proper facilities for the performance of their duties as prescribed in this act; *provided, however*, that in cities wherein the board of health is

already maintaining or shall hereafter maintain substantially such medical inspection as this act requires, the board of health shall appoint and assign the school physician.

SECT. 2. Every school physician shall make a prompt examination and diagnosis of all children referred to him as hereinafter provided, and such further examination of teachers, janitors and school buildings as in his opinion the protection of the health of the pupils may require.

SECT. 3. The school committee shall cause to be referred to a school physician for examination and diagnosis every child returning to school without a certificate from the board of health after absence on account of illness or from unknown cause; and every child in the schools under its jurisdiction who shows signs of being in ill health or of suffering from infectious or contagious disease, unless he is at once excluded from school by the teacher; except that in the case of schools in remote and isolated situations the school committee may make such other arrangements as may best carry out the purposes of this act.

SECT. 4. The school committee shall cause notice of the disease or defects, if any, from which any child is found to be suffering to be sent to his parent or guardian. Whenever a child shows symptoms of small-pox, scarlet fever, measles, chickenpox, tuberculosis, diphtheria or influenza, tonsillitis, whooping cough, mumps, scabies or trachoma, he shall be sent home immediately, or as soon as safe and proper conveyance can be found, and the board of health shall at once be notified.

SECT. 5. The school committee of every city and town shall cause every child in the public schools to be separately and carefully tested and examined at least once in every school year to ascertain whether he is suffering from defective sight or hearing or from any other disability or defect tending to prevent his receiving the full benefit of his school work, or requiring a modification of the school work in order to prevent injury to the child or to secure the best educational results. The test of sight and hearing shall be made by teachers. The committee shall cause notice of any defect or disability requiring treatment to be sent to the parent or guardian of the child, and shall require a physical record of each child to be kept in such form as the state board of education shall prescribe.

SECT. 6. The state board of health shall prescribe the directions for tests of sight and hearing and the state board of education shall, after consultation with the state board of health, prescribe and furnish to school committees suitable rules of instruction, test-cards, blanks, record books and other useful appliances for carrying out the purposes of this act, and shall provide for pupils in the normal schools instruction and practice in the best methods of testing the sight and hearing of children. The state board of education may expend during the year nineteen hundred and six



a sum not greater than fifteen hundred dollars, and annually thereafter a sum not greater than five hundred dollars for the purpose of supplying the material required by this act.

SECT. 7. The expense which a city or town may incur by virtue of the authority herein vested in the school committee or board of health, as the case may be, shall not exceed the amount appropriated for that purpose in cities by the city council and in towns by a town meeting. The appropriation shall precede any expenditure or any indebtedness which may be incurred under this act, and the sum appropriated shall be deemed a sufficient appropriation in the municipality where it is made. Such appropriation need not specify to what section of the act it shall apply, and may be voted as a total appropriation to be applied in carrying out the purposes of the act.

SECT. 8. This act shall take effect on the first day of September in the year nineteen hundred and six. [*Chapter 502, Acts of 1906.*]

In accordance with Sections 5 and 6 of the above act, the rules of instruction, test-cards and blanks, furnished by the secretary of the State Board of Education, were sent to the schools in November and the tests of sight and hearing were made in November and December. In order that there might be as much uniformity as possible in the testing, the work in the smaller buildings was assigned to one teacher, and in the larger buildings to not more than two or three teachers.

Pupils in the kindergartens and in the first primary grade were not tested. The examinations revealed some cases of defective sight that were not suspected by the teachers, and also showed the seriousness of other cases and the need of immediate attention to them.

As required by the act, parents were notified if the eyesight of pupils was found defective. Many children have been provided with glasses and immediate improvement in work and conduct has resulted. The examinations showed that twenty-nine per cent of the pupils appeared to have some defect of vision.

Six per cent of the children above the first primary grade were found defective in hearing. The parents of these children were notified, and in most cases they have taken the children to physicians for treatment.

Since 1894 the Cambridge board of health, in accordance with a request of the school committee, has appointed a physician, whose duty it is to examine all cases of contagious diseases reported, and to direct the exclusion from the schools of all pupils whose presence will, in his opinion, be a menace to the health of others. He reports his action on every case to the secretary of the school committee. This physician issues all certificates authorizing such children to return to school, as provided by Chapter 502, Section 1, of the Acts of 1906.

As a further precaution against contagious diseases, the board of health established, February 26, 1896, a system of medical inspection in the schools. The city was divided into six districts, in each of which a physician was appointed to visit the schools in that district. The duties of these physicians as now defined are as follows : —

1. The physician shall enter each room of the schools which are subject to his inspection during the morning of every school day.

He shall receive from the principal of the school a written statement signed by him which shall state the name and rooms of the pupils which the respective teachers desire to have examined. If there should be no pupils to be examined, he shall receive for each school day, a written statement from the principal, stating the fact. He shall examine such children as are indicated to him by the teacher as having complained of, or appear to be suffering from disease. He shall enter such rooms, and inspect such other children or parts of the building as he deems wise, examining at least one school each day; being careful always not to disturb the work of the school more than is necessary, in order to learn the condition of the school and the health of the pupils.

2. The physician is to recommend to the principal to send home immediately any child whom he may suspect of having any infectious disease.

3. The physician must not recommend the employment of any special physician or mode of treatment for the particular case, except in pediculosis and tinea, when he shall recommend the treatment by giving the pupil one of the cards provided.

4. In cases of nearsightedness or other trouble with the eyes, or deafness, or other ear trouble to which attention has been directed by the teacher, the physician is instructed to suggest that the principal recommend to the parents that the eyes or the ears of the pupils be examined.

5. The physician shall on the first of each month send to the office of the board of health the statements or cards which he has received and to which he shall add such comments as he thinks will be of value to the board of health.

The principal of each school is required to read the following at the beginning of each term in all the rooms under his charge.

"Any teacher or pupil who visits any apartment in which a person has been sick within two weeks, or which has been exposed within that time to contagion of smallpox, varioloid, diphtheria, or scarlet fever, shall not be allowed to attend school until the expiration of two weeks after such visit."

The truant officers have received notice through the office of the

committee and reported to the several schools the following number of contagious diseases : —

Diphtheria . . . . .	559
Scarlet Fever . . . . .	179
Measles . . . . .	657
Cerebro-spinal Meningitis . . . . .	28

### TERMS, HOLIDAYS AND SCHOOL HOURS.

The school year is divided into three terms,— the autumn, the winter, and the spring term.

The time for beginning the autumn and spring terms, and for closing the winter and spring terms, is fixed annually at the regular meeting of the committee in February. The autumn term ends December 23. The winter term begins on the first school day after that celebrated as New Year's Day.

The holidays are Saturdays ; Thanksgiving Day, with the preceding day and the day following ; the twenty-second of February ; the nineteenth of April ; Good Friday ; Memorial Day ; the seventeenth of June ; and in addition to these, for the high schools, Commencement Day at Harvard University.

The sessions of the high schools begin at 8.30 A. M., and end at 1.30 P. M. The sessions of the Rindge Manual Training School begin at 8.30 A. M., and end at 2 P. M. These schools have a recess of half an hour in each session.

With the exception of the Russell School, the morning sessions of the grammar and primary schools begin at 9 and end at 11.45. The afternoon sessions begin at 2 and end at 4, except during the months of November, December, and January, when they begin at 1.30 and end at 3.30. The grammar schools have no outdoor recess. In the primary schools the principal may, at her discretion, substitute an outdoor recess for the period at present devoted to physical training. The sessions at the Russell School begin at 8.30 A. M., and end at 1.30 P. M.

The sessions of the kindergartens are from 9 A. M. to 11.50 A. M.

There are two terms of the evening schools. The first term begins on the second Monday of October, and continues every Monday, Wednesday and Friday evening, until the end of the week before Christmas. The second term begins on the first Monday, Wednesday or Friday evening after the opening of the day schools in January, and continues thirty-five evenings. Vacations and holidays are the same as in the day schools. The sessions begin at 7.30 P. M., and continue until 9.30 P. M.

**TEACHERS.**

In December there were four hundred fifty-nine teachers in the public schools, including four unassigned teachers. Twenty-nine teachers have been nominated during the year; seven, nominated as temporary teachers last year, have been given permanent positions; and twenty-two have resigned. Nine have been given leave of absence for rest or for some special reason, and two have been given leave of absence for travel or study under the following Rule of the School Board:—

“Any teacher who has served in the city for ten years may, on recommendation of the superintendent and vote of the Board, have leave of absence for one year for purposes of travel or study, and may receive one-third of his salary, provided the amount in no case shall exceed five hundred dollars.”

Since the adoption of this rule in 1896, twenty-five teachers have been given leave of absence, twelve from the high schools, six from the grammar schools, four from the primary schools, and three from the kindergartens.

Four teachers were put on the unassigned list in June, 1905, in accordance with the following Rules of the School Board:—

“The superintendent shall prepare and submit to the Board annually in June, a list of teachers recommended by him for re-election.

“On this list he shall designate teachers who have taught in the Cambridge schools for twenty-five years or more and who have attained the age of sixty years, whose election he recommends, to serve in an assistant, temporary or substitute capacity, at a salary of three hundred fifty dollars in grammar and primary schools, and of four hundred fifty dollars in the high schools.”

Mr. Theodore P. Adams, a teacher in the high schools for thirty-six years, resigned September 1, 1906. At the meeting of the school board in September the following was adopted:—

“The school board desires to place on record its high appreciation of Mr. Adams and of his long, efficient and faithful service as a teacher in the high schools. For thirty-six years the schools have felt the influence of his industry, conscientious devotion to duty and high ideals of scholarship as shown in the spirit of helpful coöperation with teachers and pupils.”

Miss Georgia E. Martin, the assistant in music, resigned December 31, 1906. She was appointed a teacher in the Dana School in 1891, was made temporary principal in 1894, and was appointed principal in 1895. In March, 1900, the Dana School was abolished, and the teachers and pupils were transferred to the Merrill School. Miss Martin continued to

act as principal of the Merrill School, and in 1902 she was appointed the assistant in music. Her retirement from the position that she had filled so ably was a distinct loss to the schools of Cambridge. She expected good work from teachers and pupils and she secured it. By her sympathy and by her good-will she called forth enthusiastic efforts from all with whom she worked. Her visits to the schools were welcomed because she came to help, to encourage, and to show the way to a finer appreciation of the value of the study of music in the schools.

Among the other teachers who have resigned are two who have taught in Cambridge for a number of years. Miss Ellen C. Walsh was appointed to the Otis School in September, 1877, and remained in the school until her resignation. Miss Harriet Foster was appointed to the Shepard School in November, 1887, and in 1899 she was transferred to the Ellis School. Both of these teachers have left a record of faithful and efficient service.

At the meeting of the school committee in January, 1907, the resignation of Mr. Charles H. Morse as head master of the Rindge Manual Training School, to take effect January tenth, was received and laid on the table, and it was voted that he have leave of absence without pay until the end of the current school year. Mr. Morse resigned to become secretary of the Massachusetts Commission on Industrial and Technical Education.

He was appointed sub-master of the Webster School in September, 1885, and served there until September, 1889, when he was transferred to the English High School to have charge of the academic work in the Cambridge Manual Training School for Boys. In February, 1892, Mr. Morse resigned to become inspector of wires for the city of Cambridge. In this position he continued until September, 1895, when he was elected superintendent of the Cambridge Manual Training School for Boys by the supervising committee of the school. In January, 1899, the school was given to the city by Mr. Rindge, the founder, and was named the Rindge Manual Training School, and at that time Mr. Morse was elected head master of the school by the school committee of Cambridge.

As leader, guide, counsellor, teacher and friend of the hundreds of boys who have been under his influence in the eleven and a half years during which he has been at the head of the school, Mr. Morse has been so efficient that he has by his service here, earned his promotion to the larger service of the State.

#### QUALIFICATIONS OF TEACHERS.

A person to be eligible to the position of teacher in a kindergarten must have had a course in a high school, a course in a kindergarten nor-

mal school, a year's experience in teaching either in a kindergarten or a primary school, and must be able to play the piano; to be eligible to a position in a primary or grammar school, a teacher must have had a course in a high school, a course in a normal school, and a year's experience in teaching; to be eligible to a position in a high school, except in the manual training department of the manual training school, a teacher must be a college graduate. Equivalent preparation may be accepted. Preparation for the work of teaching as shown by years of study, and experience as shown by years of teaching, may be considered in fixing the salaries of teachers at the time of their nomination.

Two months after a teacher has been nominated to a position in a kindergarten or any school below the position of principal or master in a high or a grammar school, two experienced teachers who are not connected with the school in which the nominee is to serve, are designated by the superintendent to examine the teachers so nominated, while at work, and they report in writing to the superintendent; these reports, together with the testimonials and other papers relating to the qualifications and character of the teacher so examined and of all other nominees, are kept on file in the office of the superintendent and are open to inspection by members of the Board only.

The committee on teachers considers all nominations made by the superintendent. This committee confers with the superintendent, considers the reports of the examiners designated by him, makes further inquiry at discretion and reports to the Board.

Any nomination referred to the committee on teachers, unless confirmed, lapses at the expiration of six months, not counting the summer vacation. A teacher who has failed of confirmation is not to be nominated to a similar position within two years, except on the approval of the committee on teachers.

This committee inquires and reports to the Board in executive session as to the success of any teacher in the employment of the city when so requested by any member of the Board or by the superintendent, and no teacher under such inquiry receives the regular increase of salary, except on the recommendation of this committee.

Under the direction of the superintendent, teachers may visit other schools to observe the discipline and instruction. They may be required to attend teachers' meetings or courses of instruction in methods of teaching for one hour a week. Such meetings may be held on Saturday mornings during term time or at such other time, not in school hours, as the superintendent may direct. Meetings in addition to those indicated above may be held by the superintendent or may be called by him, on request of directors in special subjects.

## SALARIES OF TEACHERS AND SCHOOL OFFICERS.

## LATIN SCHOOL AND ENGLISH HIGH SCHOOL.

Head Masters . . . . .	\$3,000 00
Masters . . . . .	2,000 00
Masters' Assistants . . . . .	1,200 00
Teachers, first year . . . . .	700 00
with an annual increase of \$50 until \$950, the maximum, is reached.	
Assistant Teachers, first year . . . . .	500 00
"    "    second year and each succeeding year . . . . .	600 00

## RINDGE MANUAL TRAINING SCHOOL.

Head Master . . . . .	\$3,000 00
Master's Assistant . . . . .	1,300 00
Teachers' salaries range from \$900 to \$1,500.	

## WELLINGTON TRAINING SCHOOL.

Master . . . . .	\$2,800 00
Supervising Teachers (three) first year . . . . .	900 00
"    "    second year and each succeeding year . . . . .	1,000 00
Master's Assistant, first year . . . . .	800 00
"    "    second year and each succeeding year . . . . .	900 00
Teachers of the eighth grade . . . . .	700 00
Teachers of the seventh grade . . . . .	450 00
Teachers in the training class from \$200 to \$450.	

## GRAMMAR AND PRIMARY SCHOOLS AND KINDERGARTENS.

Masters of grammar schools, maximum . . . . .	\$2,300 00
Sub-masters, first year . . . . .	1,000 00
with an annual increase of \$100 until \$1,400, the maximum, is reached.	
Masters' Assistants, first year . . . . .	800 00
"    "    second year and each succeeding year . . . . .	900 00
Teachers of the ninth grade, first year . . . . .	750 00
"    "    "    "    second year and each succeeding year . . . . .	800 00
Special Teachers in grammar schools, first year . . . . .	700 00
"    "    "    "    "    second year and each succeeding year . . . . .	750 00
Principals of primary schools, first year . . . . .	700 00
"    "    "    "    second year and each succeeding year . . . . .	750 00
with five dollars additional for each room under her supervision.	
Teachers of grammar and primary schools and of kindergartens, first year . . . . .	450 00
with an annual increase of \$50 until \$700 is reached.	
Assistant Teachers of grammar and primary schools and of kindergartens, first year, . . . . .	450 00
with an annual increase of \$50 until \$600 is reached.	

## SUBSTITUTES.

The pay of a substitute teacher in a high school, who is employed temporarily, is \$2.50 a day; if employed one month or more, it is at the rate of \$500, \$600 or \$700 a year, the sum to be determined by the superintendent, who shall consider the experience of the teacher and the position to be filled, in fixing the sum.

The pay of a teacher who is employed temporarily as a substitute in a grammar school, a primary school, or a kindergarten, is \$1.00 a session; if employed one month or more, it is at the rate of \$450 a year.

## SPECIAL TEACHERS AND OFFICERS.

ctor of Music . . . . .	\$2,000 00
stant Teacher in Music . . . . .	800 00
ctor of Drawing . . . . .	2,000 00
stant Teacher in Drawing . . . . .	800 00
ctor of Nature Study (three-fifths time) . . . . .	1,000 00
ctor of Physical Training . . . . .	950 00
ructor in Physical Training in the High Schools . . . . .	900 00
ctor of Sewing . . . . .	700 00
hers of Sewing . . . . .	650 00
riutendent of Schools . . . . .	3,500 00
rvisor of Primary Schools . . . . .	1,300 00
it of the School Committee . . . . .	2,350 00
ant Officers (four are employed) . . . . .	1,000 00
stary of the School Committee . . . . .	400 00
of the School Committee . . . . .	25 00
stary and Librarian of the Latin School . . . . .	600 00
stary and Librarian of the English High School . . . . .	600 00
stary and Librarian of the Rindge Manual Training School . . . . .	600 00

## EVENING SCHOOLS.

ipal of Mechanical Drawing School, per evening . . . . .	\$4 00
ipal of High School " " . . . . .	4 00
ipal of Elementary Schools " " . . . . .	3 00
hers in Drawing Schools " " . . . . .	3 00
hers in High School " " . . . . .	2 00
hers in Elementary Schools " " . . . . .	1 50



**FIFTY YEARS OF SERVICE IN THE HIGH SCHOOLS OF CAMBRIDGE.**

Mr. William F. Bradbury graduated from Amherst College in 1856, being the valedictorian of his class. In June, 1856, before his graduation, he was elected as sub-master and especially as teacher of physics and mathematics in the Cambridge High School. In November, 1865, he was made Hopkins Classical Teacher and he has held this position to the present time.

Mr. Bradbury served as head master of the school for four months in 1857; for the two years from September, 1868, to September, 1870; for one year from November, 1877 to November, 1878, and for the month of September, 1880. Since March, 1881, Mr. Bradbury has been continuously in service as head master. In 1886 the school was divided and two schools, the Latin School and the English High School were established. Mr. Bradbury was then made head master of the Latin School.

During the fifty years of his service he has been absent but two days on account of illness, and this was in March, 1857. His work has not been limited to any department of instruction, for he has maintained an active oversight of every line of college preparatory work. For twenty years he taught all the Greek, and for twenty years more he taught all the Greek except that in the classes of beginners.

The thoroughness of his teaching and supervision has been proven year after year by the success of his graduates who have taken entrance examinations for Harvard and Radcliffe colleges.

On Thursday, January 3, 1907, Mr. Bradbury was given a reception in the hall of the Latin School. Mr. William Taggard Piper, president of the school committee, presided. Judge Arthur P. Stone, a graduate of the Latin School of the class of 1889, on behalf of the graduates of the high schools and the public, presented to the city a life-size portrait of Mr. Bradbury, to be hung in the hall of the Latin School. President LeBaron Russell Briggs of Radcliffe College, a graduate of the class of 1871, presented to Mr. Bradbury for graduates and citizens, a superbly bound volume containing the autographs of about eight hundred graduates of the schools. Miss Mary C. Hardy, as the representative of the teachers in the Latin School, presented to Mr. Bradbury a French clock, with the following inscription on the pedestal:—

Presented to  
WILLIAM F. BRADBURY  
by the teachers  
OF THE  
CAMBRIDGE LATIN SCHOOL  
Jan. 3, 1907.

Hon. Charles H. Thurston, mayor of Cambridge, accepted the portrait on behalf of the city. Mr. Bradbury spoke in grateful appreciation of the honor shown him and sketched the history of the high schools during the fifty years of his service in them.

The occasion was a fitting tribute to one of the leading head masters of the high schools of Massachusetts.

#### A PORTRAIT OF FRANK ALPINE HILL.

Former pupils and friends were asked to contribute for a portrait of Mr. Hill, to be placed in the hall of the English High School.

Mr. Cogswell received the sums contributed and secured a crayon portrait, which has been placed in the hall of the school.

A tablet placed upon the frame bears this inscription :

#### FRANK ALPINE HILL

HEAD MASTER OF THE ENGLISH HIGH SCHOOL

Sept. 1886 to Sept. 1893

SECRETARY OF THE STATE BOARD OF EDUCATION

May 1894 to Sept. 1903

Given to the English High School

by pupils and friends

The portrait is a remarkable likeness of the distinguished first head master of the English High School. It is a fitting memorial of one who so lived as "by the power of encouragement to develop in pupils fine and enduring qualities of heart and mind."

The funds contributed for the portrait were more than were needed, and with the sum remaining Mr. Cogswell has bought a large photobromide print of the Capitol at Washington, which will also be placed in the hall of the English High School

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**EDWIN LAWRENCE SARGENT.**

The following appreciation of Mr. Sargent of the English High School, whose sudden death removed from our number an able and efficient teacher, has been prepared by Mr. Huling, the head master of the school:—

The death of Dr. Edwin Lawrence Sargent on February 12, 1907, ended a service of more than twenty-five years in the high schools of Cambridge. This service was characterized by faithfulness to duty, steadiness of purpose, high scholarship, and an abiding cheeriness of spirit. Of a retiring disposition Dr. Sargent did not seek prominence either in the community or among his fellow teachers, but wherever he was known his companionship was highly valued both for its scholarly and for its genial qualities. He preferred to devote his energies to the upbuilding of the intellect and the character of a generation of boys and girls, and he has his reward in the tender memories which they cherish of his personality and his work.

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### HELPFUL INFLUENCES.

The Cambridge Teachers' Club, which was organized May 10, 1906, includes in its membership nearly all the teachers in the city.

The social meetings of the club have made the teachers better acquainted with each other, and the meetings for instruction have had immediate effect upon the work of the schools.

The Grammar School Principals' Club, at its monthly meetings, considers the matters that have to do with the detail of instruction and management. The effect of these meetings is a fair degree of uniformity in the grammar schools.

The Cambridge Primary Teachers' Association, which has been merged in the Cambridge Teachers' Club, has, by its effects on both the social and the professional side, exerted a strong influence for the improvement of the schools.

The Kindergarten Teachers' Association has devoted the most of the time at its monthly meetings to a study of the employments, the games and the songs of the kindergarten program.

Parents' meetings have been held at several of the schools, and at these meetings the hospitality of principals and teachers has been extended to the families represented by the children in the schools. These meetings, as well as the mothers' meetings, which have been held by the kindergarten teachers and by some of the primary teachers, have helped to bring about that cordial understanding between the school and the home that makes the efforts of the teachers far more effective.

On this point Mr. Alfred Mosely writes as follows in a communication to the London Times under the date of February 2, 1907 —

I believe our travellers have been impressed with the close touch between pupil and teacher, and the way in which the parents are invited and even urged, to attend evening conferences in the schools, so that they may know something of the teacher who has charge of their children, whilst the parents themselves are able to speak of their hopes and fears as to the future of their offspring, of the direction in which they wish their child educated, and can take counsel with the teacher as to what are the children's strong points, and for what calling in life they should be most suitable. This can only lead to efficiency, and we need, in this country also, greater sympathy in coöperation between the teacher and pupil and the parents.

At the meetings of the primary teachers with the supervisor of primary schools and with other supervisors, the work required by the course of study has been presented definitely and concisely.

The effect of all these meetings for social enjoyment and for pro-

fessional improvement is a finer and happier life in the schools; a more sympathetic attitude of teachers towards the work of their associates; a better understanding by parents of the aims of teachers; and so more appreciation of efforts for the good of the pupil.

The teacher who realizes that the hopes and the ambitions of parents are centered supremely in their children, who is mindful of the fact that home life is made glad if the children succeed and are happy in school; or is made sad if the children fail and are unhappy there, is alive to the fact that upon the quality of her management home happiness as well as school happiness largely depends.

She realizes that the child who is dull, who is stubborn, or who is failing, is the one who most needs her, and so she strives in her school management to surround him by that atmosphere of good-will, helpfulness, and discipline against which dullness, stubbornness and failure cannot prevail.

In this connection it should be borne in mind that children must be required to work, and often to work hard, in the schools, and that it is the duty of the homes to sustain and support the teachers as they require the children to work and to adjust themselves to the reasonable demands of the schools. The life of the schools must not be made easy; for if a desire for ease and an attitude of mere receptivity obtain among the pupils we shall fail to train up a company of youth who will be fit a little later to assume the duties and responsibilities of maturity. If the schools are so training the young that they realize the joy there is in hard work, one of the main purposes for which they exist is being accomplished. For the school is succeeding in which earnest work and joy are united; but the school that requires hard work in such a way that in it there is no joy, is recording its own failure upon the faces and upon the lives of the children.

It is true that in our time most of the children are finding joy in their work.

**CONCLUSION.**

This report must not close without definite and grateful reference to a condition here which is believed to be without a parallel in school administration.

In September, 1905, Francis Cogswell retired from the official responsibilities that he had borne so long. Having served the city for twenty years as master of the Putnam School, and for thirty-one years as superintendent of schools, he asked to be relieved from the burdens of the work to which his life up to that time had been given.

Mr. Cogswell's resignation was accepted and his official connection with the schools came to an end, but his interest in them did not cease with his retirement from office. Such is the affection and the respect in which he is held by the teachers, and so helpful to the superintendent is his advice, that he has not been permitted to retire from active participation in the life of the schools.

He is still a welcome visitor to the schools, a valued counsellor of the present superintendent, and a helper of all who are engaged in the work of public education in Cambridge.

Mr. Cogswell's active interest in the schools since his retirement from office crowns again his fine career of public service.

I wish, finally, to express my appreciation of the support I have received from the school committee, the supervisors, the principals, the teachers, my associates in the office, and the people of Cambridge in my work in the schools.

Respectfully submitted,

WILLIAM C. BATES,  
*Superintendent of Public Schools.*

IN SCHOOL COMMITTEE, February 21, 1907.

*Ordered*, That the report of the superintendent as read and outlined by him be accepted and adopted as the annual report of the school committee for 1906, and that the secretary be authorized to append the names of the members of the school committee thereto.

SANFORD B. HUBBARD,  
*Secretary.*

**Members of the School Committee for 1906.**

CHARLES H. THURSTON, *Chairman ex officio.*

WARREN P. ADAMS.	SHERMAN R. LANCASTER.
GEORGE W. BICKNELL.	JAMES A. LEW.
LAWRENCE G. BROOKS.	WILLIAM TAGGARD PIPER.
CAROLYN P. CHASE.	J. HENRY RUSSELL.
EDWIN L. CHENEY.	FRANK E. SANDS.
ADA R. KINSMAN.	JOSEPH E. SHARKEY.
EDWARD J. KRONAN.	JOHN E. SOMERS.
ROBERT WALKER.	

## BOOKS OF INTEREST TO TEACHERS.

The following list of books has been prepared by the librarian of the Bridge Public Library, Mr. Clarence W. Ayer, for use by the teachers of public schools. It is arranged to bring out special topics of teaching and to include some of the representative aids to teachers in all fields. Teachers are welcome to consult the books on the shelves in the library.

## EDUCATIONAL, GENERAL.

m. The scholmaster. 1884 . . . . .	370-As23
. Education and life. 1900 . . . . .	370.4-B17
. Science of education. 1904 . . . . .	370-B64
. Routine and ideals. 1904 . . . . .	370.4-B761
— School, college, and character. 1901 . . . . .	370.4-B76
. The meaning of education. 1898 . . . . .	370.4-B97
. ed. Education in the United States. 2 v. 1900 . . . . .	370.4-B972
ius. The great didactic. 1896 . . . . .	370-C73
— Orbis pictus. 1887 . . . . .	370-C731
. Principles and practice of common school education. 188—	370-C93
son. Rousseau and education according to nature. 1898 . . . . .	370-D28
rmo. Interest and education. 1902 . . . . .	370-D36
. The school and society. 1899 . . . . .	370.4-D51
n. Social phases of education in the school and the home. 1899	370.4-D95
Educational reform. 1898 . . . . .	370.4-E14
. Introduction to Herbart's science and practice of educa-	
tion. 1895 . . . . .	370.1-F33
Educational aims and methods. 1900 . . . . .	370.4-F55
er, ed. Sonnenschein's cyclopædia of education. 1889 . . . . .	370.3 F63
. Educational aims and educational values. 1899 . . . . .	370.4-H19
A modern school. 1904 . . . . .	370.4-H191
Studies in American education. 1895 . . . . .	370.4-H25
erson. Education and the larger life. 1902 . . . . .	370.4-H38
rt. Outlines of educational doctrine. 1901 . . . . .	370-H41
Philosophy of education. 1904 . . . . .	370.1-H78
y. Science and education. 1894 . . . . .	370.4-H98
Education and educators. 1883 . . . . .	370-K18
and Schem, eds. Cyclopædia of education. 1877 . . . . .	370.3-K53
Dictionary of education and instruction . . . . .	
Based upon the <i>Cyclopædia of education</i> . 1881 . . . . .	370.3-K532
. Some thoughts concerning education. 1880 . . . . .	370-L79
ton, and others. Thirteen essays on education. 1891 . . . . .	370.4-L99
rry. Elements of general method, based on the principles of	
Herbart. 1903 . . . . .	370.1-M22
[Life and works of Horace Mann. Ed. by Mrs. Mann.] 5 v.	
1891 . . . . .	370.8-M313
ieff. A book about dominies. 1869 . . . . .	370.4-M74
igne. Education of children. 1899 . . . . .	370-M76
n, comp. Educational mosaics: a collection from many	
writers (chiefly modern) of thoughts bearing on educational	
questions of the day. 1887 . . . . .	370-M82
y. Essays educational. By Brother Azarias. 1896 . . . . .	370.4-M91



Page. The rebuilding of old commonwealths. [Southern states.] 1902 . . . . .	370.4-P14
Patterson, comp. Patterson's college and school directory of the United States and Canada. 1905 . . . . .	R
Payne. Contributions to the science of education. 1886 . . . . .	370.4-P291
——— Lectures on the science and art of education. 1884 . . . . .	370.4-P29
Peaslee. Thoughts and experiences in and out of school. 1900 . . . . .	370.4-P32
Rosenkranz. Philosophy of education. 1893 . . . . .	370.1-R72
Rousseau. Emile; or concerning education. Tr. by Eleanor Worthington. 1888 . . . . .	370-R7652
——— Emile; or, treatise on education. Tr. by W. H. Payne. 1893 . . . . .	370-R7651
Schwickerath. Jesuit education. 1903 . . . . .	370-Sch98
Spalding. Education and the higher life. 1890 . . . . .	370.4-Sp16
——— Means and ends of education. 1901 . . . . .	370.4-Sp163
——— Opportunity, and other essays and addresses. 1900 . . . . .	370.4-Sp162
——— Thoughts and theories of life and education. 1901 . . . . .	370.4-Sp164
Spencer. Education, intellectual, moral, and physical. 1898 . . . . .	370-Sp3
Tarver. Debateable claims: essays on secondary education. 1898 . . . . .	370.4-T17
——— Some observations of a foster parent. 1899 . . . . .	370.4-T171
Tate. Philosophy of education. 1885 . . . . .	370.1-T18
Walker. Discussions in education. 1890 . . . . .	370.4-W15

## HISTORY OF EDUCATION.

Balfour. Educational systems of Great Britain and Ireland. 1898 . . . . .	370.9-B19
Boone. Education in the United States. 1880 . . . . .	370.9-B64
Compayré. History of pedagogy. 1888 . . . . .	370.9-C73
Cubberly. Syllabus of lectures on the history of education, with selected bibliographies. 2 v. 1902 . . . . .	370.9-C89
Davidson. Aristotle and ancient educational ideals. 1892 . . . . .	370.9-D28
——— Education of the Greek people, and its influence on civilization. 1894 . . . . .	370.9-D281
Dexter. History of education in the United States. 1904 . . . . .	370.9-D52
Hailman. Twelve lectures on the history of pedagogy. 1874 . . . . .	370.9-H12
Kemp. History of education. 1901 . . . . .	370.9-K32
Laurie. Historical survey of pre-Christian education. 1895 . . . . .	370.9-L37
——— Studies in the history of educational opinion from the renaissance. 1903 . . . . .	370.9-L371
Monroe. Source book of the history of education for the Greek and Roman period. 1901 . . . . .	370.9-M75
——— Text-book in the history of education. 1905 . . . . .	370.9-M751
Munroe. The educational ideal. 1895 . . . . .	370.9-M92
Painter. History of education. 1893 . . . . .	370.9-P16
Quick. Essays on educational reformers. 1890 . . . . .	370.9-Q4
Seeley. History of education. 1890 . . . . .	370.9-Se3
West. Alcuin and the rise of the Christian schools. 1892 . . . . .	370.9-W52
Woodward. Vittorino da Feltre and other humanist educators. 1897 . . . . .	370.9-W87

## TEACHING AND METHODS.

Abbott. The teacher. 1884 . . . . .	371-Ab2
Baldwin. Art of school management. 1881 . . . . .	371-B19
——— Psychology applied to the art of teaching. 1892 . . . . .	371-B194

Barnett. Common sense in education and teaching. 1899 . . . . .	371-B261
Barnett, <i>ed.</i> Teaching and organisation. 1897 . . . . .	371-B26
Beale, <i>and others.</i> Work and play in girls' schools. 1898 . . . . .	371-B36
Blakiston. The teacher: hints on school management. 1879 . . . . .	371-B58
Brooks. Normal methods of teaching. 1887 . . . . .	371.3-B79
Compayré. Lectures on pedagogy. 1890 . . . . .	371-C73
De Garmo. The essentials of method. 1899 . . . . .	371.3-D36
——— Herbart and the Herbartians. 1896 . . . . .	371.4-D36
Dodd. Introduction to the Herbartian principles of teaching. 1898 . . . . .	371.4-D66
Fitch. Lectures on teaching. 1887 . . . . .	371-F55
Froebel. The education of man. 1892 . . . . .	371.4-F92
Herbart. A B C of sense-perception, and minor pedagogical works. 1896 . . . . .	371.4-H41
Hill. Seven lamps for the teacher's way. 1904 . . . . .	371-H65
Hinsdale. Art of study. 1900 . . . . .	371.3-H59
Hughes. Froebel's educational laws for all teachers. 1898 . . . . .	371.4-H87
——— Mistakes in teaching. 1889 . . . . .	371-H87
Johonnot. Principles and practice of teaching. 1891 . . . . .	371-J66
Kiddle, <i>and others.</i> How to teach. 1877 . . . . .	371.3-K53
Landon. Principles and practice of teaching and class management. 1894 . . . . .	371-L23
——— School management. 1903 . . . . .	371-L231
McMurry <i>and</i> Morton. Method of the recitation. 1903 . . . . .	371.3-M229
Page. Theory and practice of teaching. 1885 . . . . .	371-P14
Parker. Notes of talks on teaching. 1891 . . . . .	371-P221
Patrick. Elements of pedagogics. 1895 . . . . .	371-P27
Pestalozzi. How Gertrude teaches her children. 1894 . . . . .	371.4-P43
——— Leonard and Gertrude. 1885 . . . . .	P437L
Pinloche. Pestalozzi and the foundation of the modern elementary school. 1901 . . . . .	371.4-P65
Prince. Courses and methods. 1886 . . . . .	371.3-P93
Putnam. Manual of pedagogics. 1893 . . . . .	371-P98
Rosenkranz. Pedagogics as a system. 1872 . . . . .	371-R72
Salmon. Art of teaching. 1898 . . . . .	371-Sa3
Schæffer. Thinking and learning to think. 1901 . . . . .	371-Sch1
Search. An ideal school. 1901 . . . . .	371-Se1
Smith. Systematic methodology. 1900 . . . . .	371-Sm5
Successful teaching: fifteen studies by practical teachers. 1906 . . . . .	371-Su12
Swett. Methods of teaching. 1880 . . . . .	371-Sw4
Thring. Theory and practice of teaching. 1883 . . . . .	371-T41
Tompkins. Philosophy of school management. 1895 . . . . .	371-T59
White. Elements of pedagogy. 1886 . . . . .	371-W58
——— School management. 1893 . . . . .	371.5-W58
Wilson. Pedagogues and parents. 1904 . . . . .	370.4-W69
Wyman. Progress in school discipline. 1867 . . . . .	371.5-W98

## ELEMENTARY EDUCATION.

Aber. An experiment in education. 1897 . . . . .	372-Ab3
Arnold. Waymarks for teachers. 1895 . . . . .	372-Ar6
Bryant. How to tell stories to children. 1905 . . . . .	372-B84
Comenius. School of infancy. 1893 . . . . .	372-C73
Currie. Principles and practice of early and infant school education. 1887 . . . . .	372-C93

George. The plan book. Intermediate grades. 3 v. 1899-1900 . . . . .	372-G29
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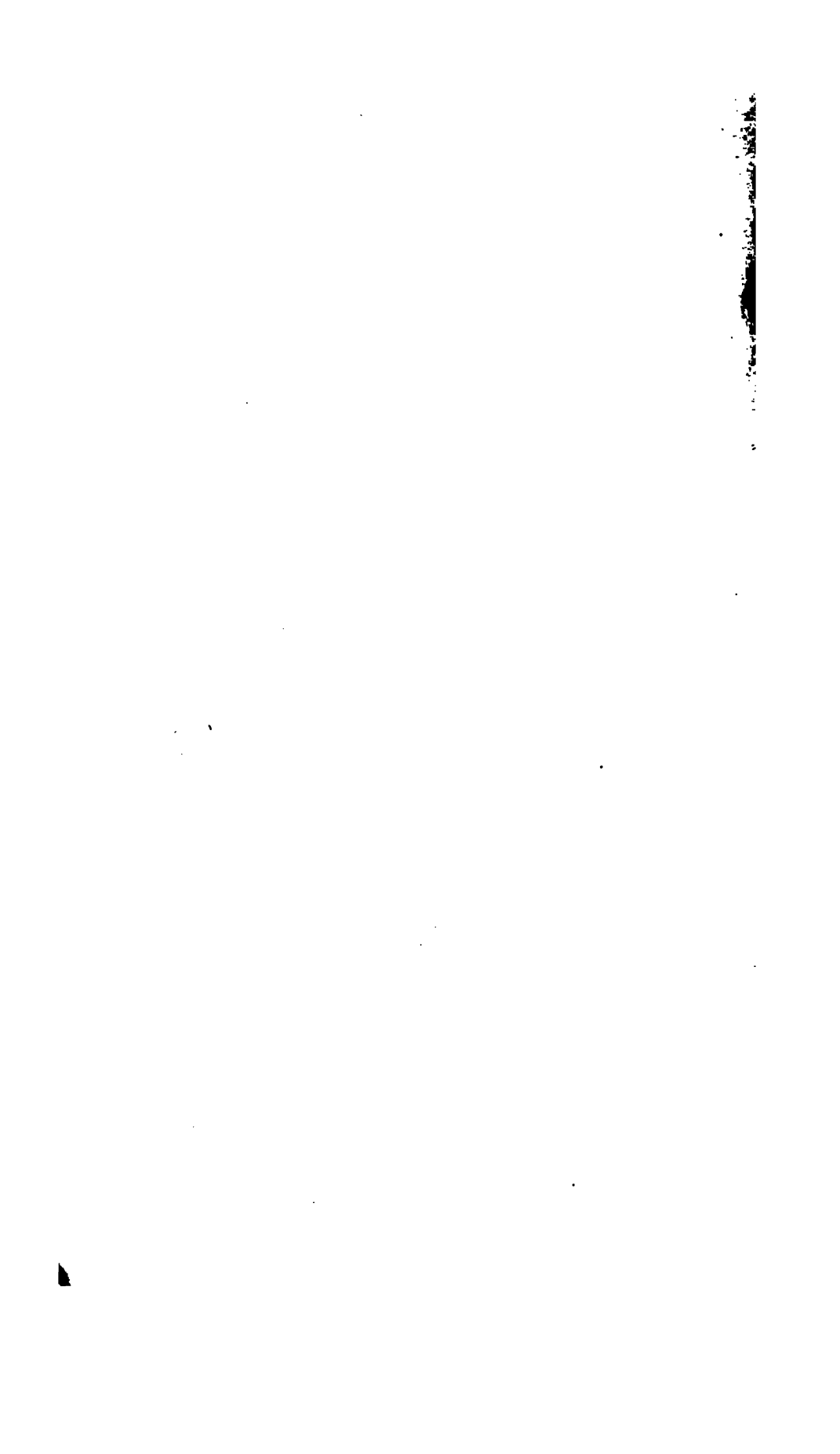
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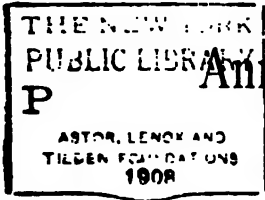
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# Annual Report

OF THE

# SCHOOL COMMITTEE

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1907



City of Cambridge

MASSACHUSETTS



# City of Cambridge

## Massachusetts

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OMPLIMENTS OF

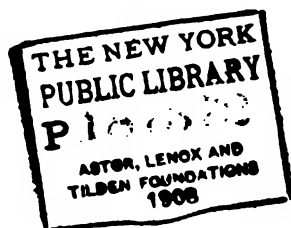
WILLIAM C. BATES

*Superintendent of Schools*

*Cambridge, Massachusetts*

1907





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## SCHOOLS AND CLASSROOMS.

December, 1907.

*Latin School . . . . .	1	Classrooms in use . . . . .	16
† English High School . . . . .	1	“ “ . . . . .	12
‡ Rindge Manual Training School . . . . .	1	“ “ . . . . .	15
α Grammar Schools . . . . .	5	“ “ . . . . .	70
β Grammar and Primary Schools . . . . .	13	“ “ . . . . .	154
Primary Schools . . . . .	15	“ “ . . . . .	80
Kindergartens . . . . .	16	“ “ . . . . .	16
Evening High School . . . . .	1	“ “ . . . . .	11
Evening Drawing Schools . . . . .	2	“ “ . . . . .	4
Evening Industrial School . . . . .	1	“ “ . . . . .	4
Evening Elementary Schools . . . . .	4	“ “ . . . . .	32
Whole number of Day Schools . . . . .			52
Whole number of classrooms for Day Schools . . . . .			363
Whole number of Evening Schools . . . . .			8
Whole number of classrooms for Evening Schools . . . . .			51

\*This school has a library, a chemical laboratory, a physical laboratory, a lecture room, a gymnasium, an assembly hall, and recitation rooms.

† This school has an assembly hall, a lecture room, a chemical laboratory, a physical laboratory, a drawing room, and recitation rooms.

‡ This school occupies three buildings and has an assembly hall, chemical and physical laboratories, drawing rooms, recitation rooms, and rooms for various kinds of shopwork.

α Four of these schools have assembly halls.

β Nine of these have assembly halls.

## NUMBER OF TEACHERS IN THE DAY SCHOOLS.

[The directors of special studies and the teachers of sewing are included in the totals.]

December	Latin School	English High School	Manual Training School	Grammar Schools	Primary Schools	Kindergartens	Total
1903	23	24	16	183	142	29	428
1904	23	24	19	187	142	29	435
1906	24	24	22	191	144	32	*451
1906	25	25	22	199	143	31	*459
1907	25	26	25	199	143	31	*464

\* Four unassigned teachers are included in the total for 1906, 1906, and 1907.

## ATTENDANCE AT ALL THE DAY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1903	16,394	14,397	13,250	92.0
1904	16,257	14,454	13,361	92.4
1906	16,381	14,606	13,550	92.8
1906	16,740	14,907	13,855	92.9
1907	16,803	14,957	13,878	92.8



## STANDING COMMITTEES

1908

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*Teachers*—Mr. Bicknell, Mr. Walker, Mr. Piper, Mr. Adams, and Mr. Somers.

*Text-Books*—Mr. Brooks, Mr. Lancaster, Mr. Russell, Mr. Bicknell, and Mr. Sharkey.

*Schoolhouses*—Mr. Somers, Mr. Lancaster, Mr. Cheney, Mr. Counihan, and Mr. Sands.

*High Schools*—Mr. Lancaster, Mr. Piper, Mrs. Chase, Mr. Brooks, and Mr. Counihan.

*Training School*—Mr. Sands, Mr. Walker, Miss Kinsman, Mr. Cheney, and Mr. Somers.

*Kindergartens*—Mrs. Chase, Mr. Lew, Mr. Walker, Miss Kinsman, and Mr. Sharkey.

*Evening Schools*—Mr. Walker, Mr. Brooks, Mrs. Chase, Mr. Lew, and Mr. Adams.

*Special Studies*—Mr. Bicknell, Mr. Sharkey, Mr. Lew, Miss Kinsman, and Mr. Counihan.

*Rules*—Mr. Russell, Mr. Adams, and Mr. Counihan.

*Finance*—The President, *ex officio*, Mr. Russell, and Mr. Sands.

*Supplies*—Mr. Russell, Mr. Cheney, and Mr. Brooks.

## THE ASSIGNMENT OF SCHOOLS

1908

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The schools are assigned to individual members of the school committee as follows:—

*To Mr. Adams*—The Agassiz, the Felton, and the Riverside.

*To Mr. Bicknell*—The Harvard, and the Merrill.

*To Mr. Brooks*—The Holmes, and the Houghton.

*To Mrs. Chase*—The Peabody.

*To Mr. Cheney*—The Parker, and the Roberts.

*To Mr. Counihan*—The Gore, and the Thorndike.

*To Miss Kinsman*—The Boardman, and the Willard.

*To Mr. Lancaster*—The Morse, and the Tarbell.

*To Mr. Lew*—The Webster.

*To Mr. Piper*—The Cushing, the Lowell, and the Russell.

*To Mr. Russell*—The Fletcher, and the Gannett.

*To Mr. Sands*—The Reed, the Shepard, and the Wyman.

*To Mr. Sharkey*—The Kelley, and the Otis.

*To Mr. Somers*—The Ellis, and the Sleeper.

*To Mr. Walker*—The Lassell, the Putnam, and the Taylor.

The kindergartens are assigned to the members of the Committee on Kindergartens.



## REPORT OF THE SCHOOL COMMITTEE FOR 1907

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In compliance with Section 44 of the Rules of the School Board, the Superintendent herewith submits his third annual report, it being for the year ending December 31, 1907:—

The following pages contain an account in great detail of the Cambridge schools for the year 1907. The tables of statistics follow the plan and the forms of other years, and are of value as showing comparative expenditures, and, as far as figures can, the results of the work in the schools. In Cambridge the public school system is remarkably complete.

The sixteen kindergartens are sufficient in number to furnish this elementary training to all children of kindergarten age who apply. They are so distributed over the city that there is a school of this kind within a reasonable distance of practically every home.

The primary schools, which as well as the kindergartens are under the special care of a supervisor of skill and experience, are not hampered by hard and fast divisions and grades, but receive the children who have not had previous school experience into classes for beginners twice in the year, and then advance them as rapidly as the varying ability of individual pupils will permit.

The ungraded rooms, in which children are taught who are too old to be in the primary schools, but who are not ready for the grammar grades, are doing an important work. In these rooms the teaching is largely individual, and from them the pupils are advanced to higher grades whenever they are prepared.

The grammar school courses are planned and administered with the thought of ample provision and encouragement for young people of varying ability. The courses are so arranged that children who do the work easily may progress rapidly and so may not suffer the discouraging and energy destroying effects of being delayed and held back by those whose proper rate of progress is more moderate. The courses are arranged also for the benefit of those children who for a time need special care, attention, and encouragement as they develop at their normal rate.

The plan that permits and encourages pupils to do the grammar school work regularly in four, five, or six years is a clear recognition of the principle of ample provision for persons of varying ability. This varying ability to do school work may depend upon one or several of a number of causes or conditions such as age, previous training, health,

physical development, employment out of school hours, power of application, and mental concentration. The special teacher in each grammar school, whose duty and privilege it is to give direction to pupils who are progressing faster than what may be called a normal rate, and also to give help to those who are in need of special care, holds a place of importance in this system.

The three high schools, each occupying its own peculiar field, are so organized that any pupil at the completion of the grammar school course may enter upon a secondary school course which has a definite aim and purpose.

The Latin School course carries on the work of preparation for college.

The English High School with its general course, its commercial course, and its domestic science course, fits pupils for the State normal schools, and gives a preparation for entrance upon active life to pupils who do not intend to continue their studies in higher institutions.

The Rindge Manual Training School in its general course, its college course, and its commercial course, gives boys an academic preparation together with manual dexterity through knowledge of tools, machinery, and mechanical processes acquired in shops, for business life or for higher scientific institutions.

The system is remarkably complete. Its success depends upon the power of teachers and school officials, individually and collectively, to hearten the young people for whose guidance and instruction the schools exist.

The system was tested in the year 1907 in more than sixteen thousand different ways by the more than sixteen thousand children who were in the schools. It succeeded in proportion to the increase of knowledge, of power, and of self-control that it gave to the children of Cambridge.

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#### POPULATION OF CAMBRIDGE.

1855 . . . . .	20,473	1885 . . . . .	59,660
1865 . . . . .	29,112	1895 . . . . .	81,643
1875 . . . . .	47,838	1905 . . . . .	97,434

#### SCHOOL CENSUS.

Number of children in the city five years old or more, but less than fifteen.

1875 (taken in May) . . .	8,128	1905 (taken in September) . .	15,858
1885 (taken in May) . . .	10,957	1906 (taken in September) . .	15,929
1895 (taken in May) . . .	12,869	1907 (taken in September) . .	16,110

## SCHOOLS AND CLASSROOMS.

December, 1907.

*Latin School . . . . .	1	Classrooms in use . . . . .	16
†English High School . . . . .	1	“ “ . . . . .	12
‡Rindge Manual Training School . . . . .	1	“ “ . . . . .	15
αGrammar Schools . . . . .	5	“ “ . . . . .	70
βGrammar and Primary Schools . . . . .	13	“ “ . . . . .	154
Primary Schools . . . . .	15	“ “ . . . . .	80
Kindergartens . . . . .	16	“ “ . . . . .	16
Evening High School . . . . .	1	“ “ . . . . .	11
Evening Drawing Schools . . . . .	2	“ “ . . . . .	4
Evening Industrial School . . . . .	1	“ “ . . . . .	4
Evening Elementary Schools . . . . .	4	“ “ . . . . .	32
Whole number of Day Schools . . . . .			52
Whole number of classrooms for Day Schools . . . . .			363
Whole number of Evening Schools . . . . .			8
Whole number of classrooms for Evening Schools . . . . .			51

\*This school has a library, a chemical laboratory, a physical laboratory, a lecture room, a gymnasium, an assembly hall, and recitation rooms.

†This school has an assembly hall, a lecture room, a chemical laboratory, a physical laboratory, a drawing room, and recitation rooms.

‡This school occupies three buildings and has an assembly hall, chemical and physical laboratories, drawing rooms, recitation rooms, and rooms for various kinds of shopwork.

αFour of these schools have assembly halls.

βNine of these have assembly halls.

## NUMBER OF TEACHERS IN THE DAY SCHOOLS.

[The directors of special studies and the teachers of sewing are included in the totals.]

December	Latin School	English High School	Manual Training School	Grammar Schools	Primary Schools	Kindergartens	Total
1903	23	24	16	183	142	29	428
1904	23	24	19	187	142	29	435
1905	24	24	22	191	144	32	*451
1906	25	25	22	199	143	31	*459
1907	25	26	25	199	143	31	*464

\* Four unassigned teachers are included in the total for 1905, 1906, and 1907.

## ATTENDANCE AT ALL THE DAY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1903	16,394	14,397	13,250	92.0
1904	16,257	14,454	13,361	92.4
1905	16,381	14,606	13,550	92.8
1906	16,740	14,907	13,855	92.9
1907	16,803	14,957	13,878	92.8

## REPORT OF SCHOOL COMMITTEE

## ATTENDANCE AT THE LATIN SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1903	501	474	451	94.9
1904	516	487	465	95.5
1905	564	531	506	95.2
1906	577	530	508	95.8
1907	544	489	471	96.3

## ATTENDANCE AT THE ENGLISH HIGH SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1903	583	493	470	95.3
1904	605	556	530	95.4
1905	595	550	525	95.5
1906	619	570	545	95.8
1907	666	594	570	95.9

## ATTENDANCE AT THE MANUAL TRAINING SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1903	300	262	251	95.9
1904	351	315	302	95.9
1905	426	396	377	95.1
1906	489	440	417	94.7
1907	475	428	409	95.6

## ATTENDANCE AT THE GRAMMAR SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1903	7,279	6,725	6,306	93.8
1904	7,322	6,701	6,316	94.3
1905	7,457	6,713	6,331	94.3
1906	7,412	6,887	6,508	94.5
1907	7,869	7,192	6,783	94.3

## ATTENDANCE AT THE PRIMARY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1903	6,711	5,755	5,227	90.8
1904	6,534	5,705	5,194	91.0
1905	6,359	5,629	5,173	91.9
1906	6,682	5,738	5,273	91.9
1907	6,324	5,551	5,092	91.7

## ATTENDANCE AT THE KINDERGARTENS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1903	1,020	688	545	79.2
1904	929	690	554	80.2
1905	980	787	638	81.1
1906	961	742	604	81.3
1907	925	703	553	78.7

NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE LATIN SCHOOL.  
Course, 5 years.

Year	Boys	Average Age	Girls	Average Age
1903	65	14 years 4 months	80	14 years 5 months
1904	67	14 years 5 months	91	14 years 7 months
1905	61	14 years 6 months	92	14 years 8 months
1906	67	14 years 2 months	85	14 years 2 months
1907	64	14 years 3 months	85	14 years 3 months

NUMBER OF PUPILS GRADUATED FROM THE LATIN SCHOOL.  
Course, 5 years.

Year	Boys	Average Age	Girls	Average Age
1903	18	18 years 4 months	31	18 years 10 months
1904	19	18 years 1 month	31	18 years 9 months
1905	40	18 years 11 months	30	18 years 7 months
1906	27	18 years 6 months	32	18 years 8 months
1907	22	18 years 11 months	35	18 years 4 months



## REPORT OF SCHOOL COMMITTEE

## NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE ENGLISH HIGH SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1903	58	14 years 8 months	192	15 years 0 months
1904	24	14 years 5 months	186	15 years 0 months
1905	10	14 years 6 months	209	14 years 6 months
1906	17	14 years 6 months	233	14 years 11 months
1907	4	13 years 4 months	254	14 years 10 months

## NUMBER OF PUPILS GRADUATED FROM THE ENGLISH HIGH SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1903	15	18 years 8 months	58	18 years 7 months
1904	12	18 years 7 months	64	18 years 9 months
1905	13	18 years 10 months	61	18 years 9 months
1906	7	17 years 7 months	67	18 years 5 months
1907	11	19 years 1 month	108	18 years 7 months

## NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE MANUAL TRAINING SCHOOL, WITH THE NUMBER OF GRADUATES.

Year	Admitted	Average Age	Graduated	Average Age
1903	144	15 years 2 months	38	18 years 7 months
1904	194	15 years 0 months	30	18 years 3 months
1905	199	15 years 0 months	32	18 years 7 months
1906	167	14 years 11 months	45	18 years 9 months
1907	203	15 years 0 months	33	19 years 0 months

## NUMBER OF PUPILS GRADUATED FROM THE GRAMMAR AND PRIMARY SCHOOLS.

Year	Grammar Schools Course, 6 yrs.	Average Age	Primary Schools Course, 3 yrs.	Average Age
1903	648	14 years 9 months	1,428	9 years 5 months
1904	708	14 years 10 months	1,444	9 years 6 months
1905	720	14 years 10 months	1,427	9 years 6 months
1906	713	14 years 9 months	1,609	9 years 5 months
1907	735	14 years 9 months	1,467	9 years 5 months

LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE  
GRAMMAR SCHOOLS.

Year	In 4 years	In 5 years	In 6 years	In 7 years or more
1903	6 per cent	26 per cent	53 per cent	15 per cent
1904	5 per cent	28 per cent	52 per cent	15 per cent
1905	6 per cent	28 per cent	53 per cent	13 per cent
1906	6 per cent	27 per cent	51 per cent	16 per cent
1907	6 per cent	27 per cent	50 per cent	17 per cent

LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE  
PRIMARY SCHOOLS.

Year	In 2 years	In 2½ years	In 3 years	In 3½ years	In 4 years	In 4½ years or more
1903	3 per cent	2 per cent	60 per cent	5 per cent	22 per cent	8 per cent
1904	3 per cent	3 per cent	54 per cent	6 per cent	24 per cent	10 per cent
1905	2 per cent	1 per cent	60 per cent	6 per cent	21 per cent	10 per cent
1906	4 per cent	1 per cent	58 per cent	4 per cent	25 per cent	8 per cent
1907	2 per cent	2 per cent	61 per cent	3 per cent	23 per cent	9 per cent

NUMBER OF PUPILS IN THE LATIN SCHOOL, DECEMBER, 1907.

Grade	Boys	Girls	Total	Per cent
Fourteenth .....	31	45	76	.147
Thirteenth .....	36	38	74	.143
Twelfth .....	34	65	99	.192
Eleventh .....	53	67	120	.232
Tenth .....	63	85	148	.286
Total .....	217	300	517	

NUMBER OF PUPILS IN THE ENGLISH HIGH SCHOOL, DECEMBER, 1907.

Grade	Boys	Girls	Total	Per cent
Thirteenth .....	7	76	83	.137
Twelfth .....	5	93	98	.161
Eleventh .....	3	166	169	.278
Tenth .....	4	247	251	.413
Specials .....	1	6	7	.011
Total .....	20	588	608	

## REPORT OF SCHOOL COMMITTEE

## NUMBER OF PUPILS IN THE MANUAL TRAINING SCHOOL, DECEMBER, 1907.

Grade	Boys		Per cent
Thirteenth.....	62	This school is for boys only. It became a part of the public school system, January 1, 1899.	.122
Twelfth.....	87		.171
Eleventh ...	168		.331
Tenth .....	191		.376
Total.....	508		

## NUMBER OF PUPILS IN THE GRAMMAR SCHOOLS, DECEMBER, 1907.

Grade	Boys	Girls	Total	Per cent
Ninth .....	293	384	677	.092
D .....	61	56	117	.016
Eighth.....	383	471	854	.115
C.....	77	76	153	.021
Seventh.....	555	547	1,102	.149
Sixth.....	643	616	1,259	.170
B .....	112	119	231	.031
Fifth.....	696	624	1,320	.178
A .....	135	166	301	.041
Fourth.....	761	625	1,386	.187
Total.....	3,716	3,684	7,400	

## NUMBER OF PUPILS IN THE PRIMARY SCHOOLS, DECEMBER, 1907.

Grade	Boys	Girls	Total	Per cent
Third.....	944	826	1,770	.307
Second .....	907	797	1,704	.295
First .....	1,208	1,085	2,293	.398
Total.....	3,059	2,708	5,767	

## NUMBER OF PUPILS AND TEACHERS IN THE KINDERGARTENS.

Year	Boys	Girls	Total	Number of Teachers
1904	378	364	742	29
1905	415	419	834	32
1906	398	402	800	31
1907	404	376	780	31

**NUMBER OF PUPILS REGISTERED IN THE EVENING DRAWING SCHOOLS, WITH  
THE AVERAGE ATTENDANCE.**

	1904	1905	1906	1907
Number registered.....	167	188	220	193
Average attendance.....	102	115	94	84

**NUMBER OF PUPILS REGISTERED IN THE EVENING INDUSTRIAL SCHOOL, WITH  
THE AVERAGE ATTENDANCE.**

	1904	1905	1906	1907
Number registered.....	....	....	50	92
Average attendance.....	....	....	33	51

**NUMBER OF PUPILS REGISTERED IN THE EVENING HIGH AND ELEMENTARY  
SCHOOLS, WITH THE AVERAGE ATTENDANCE.**

	1904	1905	1906	1907
Number registered.....	1,795	2,306	2,262	2,367
Average attendance.....	720	893	977	962

**NUMBER OF PUPILS IN THE PRIVATE SCHOOLS IN CAMBRIDGE, INCLUDING  
THOSE IN THE PAROCHIAL SCHOOLS.**

1902	1903	1904	1905	1906	1907
3,451	3,711	4,047	4,100	4,068	4,227

**NUMBER OF AGE AND SCHOOLING CERTIFICATES ISSUED.**

1902	1903	1904	1905	1906	1907
507 *354	565 *655	578 *859	666 *749	851 *1,137	868 *857

\* Issued to minors over sixteen years of age, in accordance with the law of 1902.

## REPORT OF SCHOOL COMMITTEE

## COST OF INSTRUCTION IN THE DAY SCHOOLS.

[Salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers.]

Year	Number of Teachers in December	Average Number of Pupils	Whole Cost	Cost per Pupl
1876	176	7,066	\$164,818 00	\$23 32
1880	182	7,175	130,371 75	18 17
1884	216	8,414	152,290 62	18 09
1888	241	9,756	175,773 80	18 02
1892	284	10,861	207,144 22	19 07
1896	337	11,957	245,104 01	20 50
1900	409	13,816	326,512 34	23 63
1902	417	14,244	343,787 00	24 14
1903	428	14,397	349,179 80	24 25
1904	435	14,454	356,406 89	24 66
1905	*451	14,606	366,448 39	25 09
1906	*459	14,907	377,343 02	25 31
1907	*464	14,957	385,927 00	25 80

## COST OF THE DAY SCHOOLS.

[This includes the cost of instruction, of text-books and supplies, of incidental expenses, of the care of truants, of the care and † repair of schoolhouses, and of the transportation of pupils.]

Year	Number of Teachers in December	Average Number of Pupils	Whole Cost	Cost per Pupl
1876	176	7,066	\$200,894 09	\$28 43
1880	182	7,175	153,967 56	21 45
1884	216	8,414	203,234 56	24 15
1888	241	9,756	225,408 57	23 10
1892	284	10,861	266,651 02	24 55
1896	337	11,957	316,090 83	26 44
1900	409	13,816	417,554 00	30 22
1902	417	14,244	427,356 71	30 00
1903	428	14,397	429,554 39	29 84
1904	435	14,454	450,310 44	31 15
1905	*451	14,606	462,412 09	31 66
1906	*459	14,907	464,529 43	31 16
1907	*464	14,957	488,636 18	32 67

## COST OF INSTRUCTION IN THE EVENING SCHOOLS.

Year	Drawing	Industrial Training	High	Elementary	Total
1903	\$1,428 00	.....	\$1,683 00	\$5,000 50	\$8,111 50
1904	1,343 00	.....	1,577 50	5,708 00	8,628 50
1905	1,491 00	\$180 00	1,709 00	6,436 00	9,816 00
1906	1,647 00	788 00	1,830 00	7,440 50	11,706 50
1907	1,274 00	831 00	1,380 00	5,587 00	9,072 00

\* Four unassigned teachers are included.

† In accordance with the statutory definition of the support of public schools, the cost of the repair of schoolhouses has not been included in the cost of the schools since 1902, and will not be in the future.

## FINANCES

(For the financial year ending December 1, 1907.)

Cost of instruction in the day schools . . . . .	\$385,927 00
Cost of instruction in the evening schools . . . . .	9,072 00
Cost of care of buildings, including heat and light, day schools . . . . .	74,504 79
Cost of care of buildings, including heat and light, evening schools . . . . .	3,526 17
Cost of text-books and supplies, day schools . . . . .	23,063 87
Cost of text-books and supplies, evening schools . . . . .	435 65
Expended for the care of truants . . . . .	2,654 71
Expended on flags and flagstuffs . . . . .	32 40
Expended for incidentals . . . . .	2,231 91
Expended for transportation of pupils . . . . .	222 00
Expended on vacation schools . . . . .	1,913 39
Expended on Houghton schoolhouse . . . . .	3,720 60
Expended for land in the vicinity of the Taylor School . . . . .	2,500 00
Expended on addition to the Wellington schoolhouse . . . . .	39,768 32
Expended for furniture . . . . .	2,877 27
Expended for repairs to buildings, furniture, etc. . . . .	12,671 66
Expended for sundry labor about school buildings . . . . .	3,587 20
	<hr/>
	\$568,703 44

Deducting from the above the amount received for the tuition of State and Boston city wards, \$1,002.00, the tuition of non-resident pupils, \$5,849.00, the amount received for sales of and damages to books, \$826.51, and the amount received for the sale of old material in the building department, \$17.10 . . . . .

7,894 61

The actual cost of the schools to the city is . . . . .

\*\$561,008 83

Assessed value of real and personal estate, May, 1907 . . . . .

\$107,009,290 00

Ratio of expenditure for school purposes to the valuation of 1907 . . . . .

.0062

Ratio of expenditure for school purposes to the valuation of 1907, omitting extraordinary expenses at the Houghton, Taylor, and Wellington schools . . . . .

.0048

\* The amount given above is the actual cost of the schools for 1906-1907. It differs from the amount given by the city auditor, as expenditures were made and bills were approved by the school committee in 1906 for \$4,750 55 for text-books, \$823.97 for the care of truants, and \$667.73 for incidental expenses, a total of \$6,042.25, which was not paid until the financial year 1906-1907.

## TABULAR VIEW

DECEMBER 31, 1907.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1907
Latin.....	William F. Bradbury.....	\$3,000	517
	Isaac B. Burgess.....	1,900	
	Cecil T. Derry.....	1,150	
	John I. Phinney.....	2,000	
	Alfred R. Wightman.....	1,400	
	Arthur E. Wood.....	850	
	Helen M. Albee.....	950	
	Alice C. Baldwin.....	950	
	Almira W. Bates.....	900	
	Margaret S. Bradbury.....	900	
	Isabel S. Burton.....	950	
	Alice D. Chamberlain.....	950	
	Margaret C. Cotter.....	750	
	Caroline Drew.....	950	
	Nellie E. Fawcett.....	850	
	Elizabeth B. Flanders.....	850	
	Margaret J. Griffith.....	850	
	Mary C. Hardy.....	950	
	Rose Hardwick.....	950	
	Mabel E. Harris.....	950	
	Helen W. Munroe.....	950	
	Louisa P. Parker.....	950	
	Lena G. Perrigo.....	950	
	Ethel V. Sampson.....	950	
	Jennie S. Spring.....	950	
	*Annie S. Dodge.....	650	
English High.....	Ray Greene Huling.....	3,000	608
	Richard Benson.....	1,100	
	Chester M. Bliss.....	1,700	
	Joseph A. Coolidge.....	1,800	
	Chester M. Grover.....	1,700	
	Grace L. Deering.....	1,200	
	Caroline Close.....	950	
	Bertha L. Cogswell.....	950	
	Gertrude H. Crook.....	950	
	Mary L. Cunningham.....	950	
	Grace E. Dennett.....	800	
	Esther S. Dodge.....	950	
	Elizabeth L. Huling.....	800	
	Ellen P. Huling.....	750	
	Katherine H. James.....	950	
	Jeannie B. Kenrick.....	950	
	Maud A. Lawson.....	950	
	Henrietta E. McIntire.....	950	
	Mary Moulton.....	950	
	Lillian C. Rogers.....	950	
	Caroline A. Sawyer.....	950	
	Florence W. Smith.....	950	
	Martha R. Smith.....	950	
	Della M. Stickney.....	1,200	
	Annie F. Stratton.....	950	
	Mabel D. Watson.....	950	
	*Martha L. Babbitt.....	650	
Rindge Manual Training..	John W. Wood, Jr.....	2,700	508
	†Myra I. Ellis.....	1,350	
	Helen W. Metcalf.....	950	
	Florence Waugh.....	850	
	Nathaniel H. Atkins.....	1,500	
	Francis L. Bain.....	1,200	

\* Secretary and Librarian.

† On leave of absence in accordance with Section 69 of the Rules of the School Committee.

## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1907
Manual Training, continued.....	Robert W. Broderick .....	\$400	
	John F. Cole .....	1,000	
	James F. Conlin .....	1,200	
	Richard H. Gallagher .....	1,400	
	Harry D. Gaylord .....	1,200	
	Frederick G. Getchell .....	1,300	
	Evan W. Griffiths .....	1,300	
	William O. Hubbard .....	1,000	
	Harold M. Jones .....	1,200	
	Gustaf A. Lundquist .....	1,100	
	James E. MacWhinnie .....	1,450	
	Edward R. Markham .....	1,500	
	Joseph M. Norton .....	1,150	
	Harry E. Rich .....	1,150	
	Charles H. Richert .....	950	
	Sidney F. Smith .....	1,400	
	Charles E. Stratton .....	1,400	
	James G. Telfer .....	1,500	
	Frederick L. Thurston .....	1,100	
	Albert L. Ware .....	1,500	
	* Myrta E. Smith .....	650	
iz, { Grammar.....	Maria L. Baldwin .....	1,000	{ 150
{ Primary.....	Edith C. Arsy .....	700	{ 134
	Frances W. Dawson .....	700	
	Lillian G. Goodwin .....	700	
	Mary A. Parsons .....	700	
	Grace C. Stedman .....	700	
	Abby S. Taylor .....	700	
	Agnes L. Tracy .....	700	
man, Primary .....	Elizabeth J. Karcher .....	790	331
	Mabel E. Blake .....	700	
	Lillian M. Cuddy .....	600	
	Blauche M. Gould .....	600	
	Malvina M. Joslin .....	700	
	Lucy A. Roper .....	450	
	Jennie B. Ross .....	650	
	Lucy A. Witham .....	700	
ng, Primary.....	Maude A. Deehan .....	760	75
	Sarah C. McManama .....	450	
Grammar.....	Edward O. Grover .....	2,200	527
	Ernest Libby .....	1,100	
	Nellie A. Hutchins .....	900	
	Caroline L. Blake .....	800	
	Adelaide G. Bunker .....	750	
	Emma A. Faulkner .....	700	
	Lottie L. Griswold .....	700	
	Louise H. Griswold .....	700	
	Ellen J. Hunt .....	700	
	Flora C. Ingraham .....	700	
	Ida J. Mahoney .....	650	
	Sarah W. Mendell .....	700	
	Mary A. Stephenson .....	700	
	Josephine C. Wyman .....	700	
3, Primary .....	C. Florence Smith .....	770	161
	Marcia R. Bowman .....	700	
	Carrie H. Smith .....	700	
	Eleanor M. Stevens .....	700	

Secretary and Librarian.



## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1907
Fletcher, { Grammar ..... { Primary.....	George B. Colesworthy.....	\$1,700	{ 392
	Nellie A. Coburn.....	900	
	Frances E. Higgins.....	750	{ 355
	Gertrude M. Baker.....	600	
	Mary I. Chapin.....	700	
	Ellen A. Cheney.....	700	
	Mary B. Cole.....	600	
	Mary A. Doran.....	700	
	Mary N. Flewelling.....	600	
	Katherine A. Gaskill.....	700	
	Elmira F. Hall.....	700	
	Julia M. Horgan.....	450	
	Martha B. Perkins.....	700	
	Marion Prescott.....	700	
	Susan L. Senter.....	700	
	Eva A. Taylor.....	700	
	Gertrude M. Webster.....	600	
	Emma G. Wentworth.....	700	
Gannett, Primary.....	Mary A. Rady.....	775	171
	Annie M. Billings.....	700	
	Margaret F. Sanderson.....	700	
	Gertrude T. Sullivan.....	700	
Gore, Primary.....	Frances E. Pendexter.....	810	410
	Charlotte A. Callahan.....	700	
	Katherine L. Dolan.....	700	
	Mary L. Donovan.....	600	
	Minnie A. Doran.....	700	
	Kate A. Hegarty.....	700	
	Katherine L. McElroy.....	700	
	Julia G. McHugh.....	700	
	Olive I. McNulty.....	550	
	Mary E. Mulloney.....	750	
	Anastasia Peters.....	700	
	Nora E. Reardon.....	700	
Harvard, Grammar.....	Thomas W. Davis.....	2,200	731
	William L. MacGregor.....	1,300	
	Margaret B. Wellington.....	900	
	Estella J. French.....	800	
	Annie M. Street.....	750	
	Addie L. Bartlett.....	700	
	Esther L. Cogan.....	500	
	M. Blanche Craig.....	550	
	Frances Fabyan.....	700	
	Margaret M. Fearn.....	700	
	Annie B. Lowell.....	700	
	Josephine MacDonald.....	700	
	Gertrude P. McCusker.....	550	
	Waitie M. Nash.....	700	
	Laura L. Parmenter.....	700	
	Louise C. Patterson.....	700	
	Elizabeth L. Setchell.....	700	
	Hortense O. Young.....	700	
Holmes, Primary.....	Susan E. Wyeth.....	760	64
	Catherine M. Doran.....	600	
Houghton, { Grammar.... { Primary....	John W. Freese.....	2,200	{ 480
	Blanche E. Townsend.....	900	
	Alice P. Fay.....	750	{ 91
	Grace D. Beckwith.....	700	

## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1907
hton, Continued.....	Katharine F. Callahan.....	\$700	
	Eldora J. Clark.....	700	
	Mary L. Ellis.....	700	
	Katharine M. Greene.....	600	
	Gertrude A. Kenney.....	550	
	Winifred L. Kinsley.....	700	
	Emma Penney.....	700	
	Margaret J. Penney.....	700	
	Anna G. Scannell.....	600	
	Hattie Shepherd.....	700	
	Mary G. Snow.....	550	
Y. } Grammar.....	H. Warren Foss.....	1,500	{ 369
Y. } Primary.....	Catharine A. McLean.....	800	{ 334
	Ellen A. Kidder.....	750	
	Ellen T. Carroll.....	450	
	Olive L. Cook.....	650	
	Josephine Day.....	700	
	Maude M. Dutton.....	700	
	Mary L. Feeny.....	450	
	Lucy M. Fletcher.....	700	
	Carrie M. Ford.....	650	
	Jennie C. Hardy.....	700	
	Emma J. Houlahan.....	700	
	Mary E. Moran.....	600	
	Ethel I. Murch.....	700	
	Eva G. Oakes.....	700	
	Esther D. Paul.....	700	
	Carrie L. Power.....	700	
	Mary E. Regan.....	700	
II, Primary.....	Frances E. Whoriskey.....	770	186
	Rose V. Collier.....	700	
	Elizabeth B. Gahm.....	700	
	Mary E. Whoriskey.....	700	
II, } Grammar.....	Eusebia A. Minard.....	770	{ 37
II, } Primary.....	Agnes J. McElroy.....	700	{ 70
	Cora B. Poole.....	600	
II, Primary.....	Louise W. Harris.....	785	243
	Julia M. Davis.....	700	
	Henriette E. de Rochemont.....	700	
	Daisy E. Haynes.....	700	
	Marion B. Magwire.....	700	
	Gertrude S. Thayer.....	650	
	Nellie F. Walker.....	700	
5. } Grammar.....	Mary A. Townsend.....	2,200	{ 437
5. } Primary.....	Mary E. Towle.....	900	{ 223
	Clintina E. Curtis.....	750	
	Ida J. Holmes.....	750	
	Elizabeth J. Baldwin.....	700	
	Edith M. Carman.....	600	
	Elsie H. Cooter.....	450	
	Christina R. Denyven.....	700	
	Florence E. Hunter.....	700	
	Alice E. May.....	700	
	Helen Montague.....	700	
	Anna A. O'Connell.....	700	
	Ella M. Pinkham.....	700	
	Elizabeth H. Richards.....	700	
	Lucy M. Soule.....	700	

## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pupl Dec. 31, 190
Morse, Continued.....	Bertha J. Waldron..... Mary E. Warren..... Constance E. Yeames.....	\$700 700 550	
Otis, Primary.....	Ellen N. Leighton..... Frances Allen..... Anna E. Callahan..... Josephine M. Doherty..... Nettie I. Haff..... Luella M. Marsh..... Anna N. Sullivan..... Margaret Sullivan.....	785 700 700 700 500 700 700 700	284
Parker, Primary.....	Mary A. Knowles..... Mattie S. Cutting..... Harriet R. Harrington..... Agnes Marchant..... Mary E. Mullins..... Mary E. White.....	780 700 700 700 650 700	218
Peabody, { Grammar..... { Primary.....	Frederick S. Cutter..... Charlotte A. Ewell..... Sylvia L. Williams..... Anna F. Bellows..... *Susan C. Allison..... Bernice E. Bartlett..... Florence E. Bunton..... Katherine L. Carr..... Helen E. Hazard..... Ida M. Holden..... Mary L. Perley..... Isadore M. Thompson..... Dora Trefethen..... Alice M. Tufts..... Madeleine Wood.....	2,200 900 750 750 700 450 450 700 700 700 650 650 700 700 450	{ 384 173
Putnam, Grammar.....	Frederick B. Thompson..... James E. White..... Maude M. Mixer..... Eliza S. Paddock..... Grace Clark..... Mary A. Carmichael..... Martha Chisholm..... Anna L. P. Collins..... Sarah M. Grieves..... Annie B. Josselyn..... Nellie A. Kerrigan..... Jane E. McKearin..... Margaret F. O'Keefe..... Annie M. R. Sturtevant..... Annie A. Trelegan..... Minnie F. Wilson.....	2,200 1,400 900 800 750 700 650 700 700 700 650 800 700 450 700 700	613
Reed, Primary.....	Margaret T. Burke..... Elizabeth G. Nelligan..... Julia A. Robinson..... Clara W. Ruggli.....	770 700 700 700	160
Riverside, Primary.....	Elizabeth A. Tower..... Amanda M. Alger..... Mary A. Burke..... Hattie A. Thayer.....	770 700 700 700	185

\* On leave of absence in accordance with Section 69 of the Rules of the School Committee

## TABULAR VIEW—Continued.

Names of Schools		Teachers	Salaries	No. of Pupils Dec. 31, 1907
s.	{ Grammar.....	W. Mortimer MacVicar.....	\$2,200	{ 627
	{ Primary.....	Sara A. Bailey.....	900	{ 71
		Emily R. Pitkin.....	750	
		Susan M. Adams.....	700	
		Mary Blair.....	700	
		Elizabeth M. Breslin.....	700	
		Mary M. Brigham.....	700	
		Faith Foxcroft.....	600	
		Mary F. Hill.....	600	
		Susan L. Keniston.....	700	
		Evelyn B. Kenney.....	700	
		Marjorie H. Lenox.....	500	
		Ada M. Litchfield.....	700	
		Sarah E. Magurn.....	450	
		Rose A. Murray.....	650	
		Ida G. Smith.....	700	
		Gertrude A. White.....	600	
		Caroline M. Williams.....	700	
l.	{ Grammar.....	Arthur C. Wadsworth.....	2,200	{ 362
	{ Primary.....	Mary S. Bingham.....	900	{ 119
		*Carrie J. Allison.....	700	
		R. Marjorie Bourne.....	500	
		Fannie P. Browning.....	700	
		Ella E. Buttrick.....	700	
		Mary A. Connelly.....	700	
		Louise F. James.....	600	
		Anna M. Lyons.....	700	
		Louise I. MacWhinnie.....	650	
		H. Maud Maclean.....	700	
		Edith M. O'Brien.....	600	
		Gertrude E. Russell.....	700	
d.	{ Grammar.....	Evelyn J. Locke.....	1,000	{ 281
	{ Primary.....	Mary F. Caluane.....	700	{ 106
		Florence M. Dudley.....	700	
		Alice M. Gage.....	700	
		Mary M. Gilman.....	700	
		Dora Leadbetter.....	650	
		Theresa H. Mahoney.....	700	
		Elizabeth J. O'Keefe.....	600	
		Ellen T. O'Keefe.....	700	
		Anna E. Welch.....	650	
r.	{ Grammar.....	A. Estelle Ingraham.....	1,000	{ 132
	{ Primary.....	Emily Bissell.....	700	{ 162
		Butella E. L. Conland.....	700	
		Evelyn M. Dormer.....	700	
		Elizabeth O. Haynes.....	700	
		Melissa M. Lloyd.....	700	
		Mary A. Macklin.....	700	
		Lillian G. Pattinson.....	450	
		*Blanche C. Trefethen.....	700	
l.	{ Grammar.....	Emma J. Young.....	770	{ 187
	{ Primary.....	Florence J. Alley.....	700	
		Carrie P. Pierce.....	700	
		Anna H. Welsh.....	700	
.	{ Grammar.....	Ella R. Avery.....	1,000	{ 137
	{ Primary.....	Mary A. Boland.....	700	{ 263
		Lillian M. Cauty.....	700	

On leave of absence in accordance with Section 69 of the Rules of the School Committee.

## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1907
Taylor, Continued.....	Alice V. Carmichael..... Lillian W. Davis..... Emily M. Dowd..... Mabel A. Gauthier..... Winifred B. Goodwillie..... Cecilia F. Leahy..... Mary A. Maguire.....	\$450 700 550 450 550 750 650	
Thorndike, Grammar....	Ruel H. Fletcher..... Harriet A. Townsend..... Lydia A. Whitcher..... Laura A. Westcott..... Flora E. Cooter..... Jennie W. Cronin..... Grace W. Fletcher..... Eulalia L. Herald..... Lillian H. Kenney..... Margaret M. Mahoney..... Ethel M. McLeod..... Cora L. Mulrey..... Ellen M. Plympton..... Mabel A. Short.....	2,200 900 800 750 700 700 700 700 700 500 600 500 700 700	493
Webster, Grammar.....	John D. Billings..... H. Herbert Richardson..... Alice C. Phinney..... Martha N. Hanson..... Ada A. Billings..... Mabel T. Ashley..... Adelaide D. Billings..... Charlotte M. Chase..... Fanny F. Curtis..... Susan I. Downs..... Gertrude B. Duffy..... Josephine Hills..... Gertrude I. Johnson..... Carolyn E. Mann..... Nora P. Nason..... Minnie V. Reid..... Harriette E. Shepard..... Olive L. Slater.....	2,200 1,300 900 800 750 700 700 700 700 700 700 700 700 700 700 700 700 700	763
Wellington, { Grammar.. { Primary...	Herbert H. Bates..... Sarah J. Gunnison..... Margaret Kidd..... Mary I. Vinton..... Carrie H. Stevens..... Grace F. Chamberlain..... Ellen A. Sullivan..... Training Class.....	2,800 1,000 1,000 1,000 900 700 550 8,013	{ 486 276
Willard, Primary.....	Katharine E. Hayes..... Agalena Aldrich..... Elizabeth M. Crowley..... Mary L. Dolan..... Ella F. Gulliver..... Julia S. Gushee..... Mary E. G. Harrington..... Katherine M. Lowell..... Mary A. O'Hara..... Annie M. Sands..... Eliza D. Watson..... Grace R. Woodward.....	810 700 700 700 700 700 700 700 700 550 700 700	516

\* Secretary and Librarian.

## TABULAR VIEW—Concluded.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1907
Boardman, Primary.....	Addie M. Bettinson..... Maria J. Bacon..... Mary H. Brooks..... Georgianna P. Dutcher..... Genevieve S. Flint.....	\$780 700 700 700 700	199
Boardman .....	Florence Rice.....	700	49
Corlett.....	Agnes M. Quinn .....	500	
	Annie M. Dodd .....	700	40
Gannett.....	Frances W. Roberts.....	550	
	Carrie E. Shepherd .....	700	40
Gore.....	Marion L. Akerman .....	600	
	Selma E. Berthold .....	700	53
	Annie L. Crane.....	600	
Houghton.....	Edith L. Lesley.....	700	58
	Olive M. Lesley.....	600	
Lowell .....	Melinda Gates.....	700	33
Merrill.....	Caroline A. Leighton.....	700	58
	Ethel M. Halliday .....	500	
Parker .....	Leonice S. Morae.....	700	46
	Ida E. Ward.....	550	
Peabody.....	Julia L. Frame.....	700	56
	Irene L. Phelps.....	600	
Shaw.....	Harriette E. Ryan.....	700	56
	Gertrude M. Simpson.....	550	
Sleeper.....	Mabel S. Adams.....	700	51
	Caroline E. Simpson.....	600	
Taylor.....	Mary F. Leland.....	700	45
	Anna D. Francis.....	550	
Wellington .....	Gertrude M. Gove.....	700	54
	Carita B. Dickson.....	500	
Willard, A. M....	Alice V. McIntire.....	700	52
	Lucy E. Whipple.....	600	
Willard, P. M....	Jennie S. Clough.....	700	47
	Eva C. Katon.....	600	
Wyman.....	Clara A. Hall.....	700	42
	Mary E. Valpey.....	500	
Teachers of Sewing.....	Agnes Gordon.....	700	
	Katharine A. Burke .....	150	
	Nancy T. Dawe.....	650	
	Alice H. Nay.....	650	
Stitutes.....	Alice V. Connelly.....	450	
	Mary A. Driscoll.....	500	
	Catherine G. Kelley.....	450	
	Tina M. King .....	450	
Assigned Teachers.			
High School.....	Emma A. Scudder.....	450	
Primary Schools.....	Sally N. Chamberlain.....	350	
	M. Elizabeth Evans.....	350	
	Mary E. Sawyer.....	350	

LECTOR OF MUSIC—Frederick E. Chapman . . . . .	\$2,000
ISTANT IN MUSIC—Annie R. Hooper . . . . .	800
ECTOR OF DRAWING—Peter Roos . . . . .	2,000
ISTANT IN DRAWING—Lucia N. Jennison . . . . .	800
ECTOR OF NATURE STUDY—Sarah E. Brassill . . . . .	1,000
ECTOR OF PHYSICAL TRAINING IN GRAMMAR AND PRIMARY SCHOOLS—Sara E. Boudren . . . . .	950

INSTRUCTOR IN PHYSICAL TRAINING IN THE HIGH SCHOOLS—Bessie W. Howard . . . . .		\$950
SUPERINTENDENT—William C. Bates . . . . .		3,500
SUPERVISOR OF PRIMARY SCHOOLS—Mary A. Lewis . . . . .		1,350
AGENT—Sanford B. Hubbard . . . . .		2,350
CLERKS—Althea B. Frost . . . . .		800
Sadie E. Kimball . . . . .		700
PORTER—John Lemon . . . . .		700
TRUANT OFFICERS—Lucian S. Cabot . . . . .		1,000
John Carmichael . . . . .		1,000
William H. Porter . . . . .		1,000
Thomas F. Riley . . . . .		1,000

## SUMMARY

Number of pupils in the Latin School . . . . .	517
Number of pupils in the English High School . . . . .	608
Number of pupils in the Rindge Manual Training School . . . . .	508
Number of pupils in the Grammar Schools . . . . .	7,400
Number of pupils in the Primary Schools . . . . .	5,767
Number of pupils in the Kindergartens . . . . .	780
Total . . . . .	15,580
Number of pupils belonging to the public schools in December, 1906 . . . . .	15,475
Increase of pupils, 1907 . . . . .	105
Increase of pupils, 1906 . . . . .	111
Increase of pupils, 1905 . . . . .	289
Increase of pupils, 1904 . . . . .	140
Increase of pupils, 1903 . . . . .	188
Increase of pupils, 1902 . . . . .	253
Increase of pupils, 1901 . . . . .	63
Increase of pupils, 1900 . . . . .	332
Increase of pupils, 1899 . . . . .	314
Increase of pupils, 1898 . . . . .	476
Increase of pupils, 1897 . . . . .	422
Average annual increase of pupils from 1897 to 1907 (inclusive) . . . . .	245

## COST OF INSTRUCTION.

Schools and Officers	Cost of Instruction	Average Number of Pupils	Cost per Pupil
hool.....	\$26,923 42	489	\$55 06
High School.....	28,213 67	594	47 50
Manual Training School.....	30,038 93	428	70 18
School (Teachers).....	15,928 25	694	22 85
r Schools (except Training School)	145,625 72	6,746	21 59
Schools (except Training School)	90,040 17	5,303	16 98
arts.....	19,750 35	703	28 09
s of Drawing.....	2,800 00	....	....
s of Music.....	2,690 33	....	....
of Nature Study.....	1,000 00	....	....
s of Physical Training.....	1,824 00	....	....
of Sewing.....	2,030 00	....	....
te Teachers.....	3,446 16	....	....
endent.....	3,500 00	....	....
or of Primary Schools.....	1,315 00	....	....
.....	2,350 00	....	....
.....	1,451 00	....	....
.....	700 00	....	....
Officers.....	4,000 00	....	....
ed Teachers.....	1,500 00	....	....
Manual Training School, summer			
ons for Harvard Students.....	800 00	....	....
.....	\$385,927 00	14,957	\$25 80

Instruction in Evening Drawing Schools . . . . .	\$1,274 00
Instruction in Evening Industrial School . . . . .	831 00
Instruction in Evening High School . . . . .	1,380 00
Instruction in Evening Elementary Schools . . . . .	5,587 00
l . . . . .	\$9,072 00



## REMARKS ON THE STATISTICS

The number of pupils registered in the day schools during the school year ending June 26, 1907, was 16,803; the average number belonging was 14,957, and the average daily attendance was 13,878. In the per cent of attendance there has been a decrease of one-tenth of one per cent. The number belonging to the schools in December, 1906, was 15,475; in December, 1907, 15,580, an increase of 105.

The cost of instruction, which includes the salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers, was \$385,927.00. The total cost of the day schools, which in accordance with the statutory definition of the support of schools, includes the cost of instruction, text-books and supplies, incidental expenses, care of truants, care of school-houses, including the cost of fuel and light, and the transportation of pupils, was \$488,636.18.

The registration at the evening schools for the school year 1906-1907 was 2,652, and the average attendance was 1,097. The total cost of these schools, which includes the salaries of teachers, the cost of text-books and supplies, care of schoolhouses, including fuel and light, was \$13,033.82.

While Cambridge expends a large amount for her schools, there are *two hundred eighteen* towns and cities in the State which make a larger expenditure in proportion to their wealth. In a list of the thirty-three cities, arranged numerically according to the percentage of their taxable property, appropriated to the support of public schools for the year 1906-1907, Cambridge is the *twenty-first*. In a list of the towns and cities of the State, arranged numerically according to the sum appropriated for each child in the average membership of the public schools, Cambridge is the *forty-first*.

These statistics relating to the schools of the State are taken from the seventy-first annual report of the secretary of the State Board of Education.

## TEXT-BOOKS AND SUPPLIES

At a meeting of the Board in December the committee on supplies submitted a detailed report of the expenditures of that committee for the year. The report is as follows: —



In accordance with Section 30 of the Rules of the School Board, the committee on supplies submits its twenty-third annual report, it being for the year ending July 1, 1907: —

Stock in storeroom July 1, 1906 . . . . .	\$7,142 58	
Expended from the appropriation . . . . .	24,507 31	
Value of exchanges . . . . .	1,303 24	
		<u>\$32,953 13</u>
Distributed to schools, officers, etc. . . . .	\$25,964 14	
Books exchanged . . . . .	18 42	
Sold for cash . . . . .	297 78	
		<u>\$26,280 34</u>
Stock on hand July 1, 1907 . . . . .		<u>\$6,672 79</u>

The purchases and expenditures appear in detail as follows: —

For text-books . . . . .	\$12,138 05	
Desk and reference books . . . . .	415 08	
Copy books . . . . .	714 06	
Apparatus and furnishings . . . . .	1,066 01	
Diplomas, \$256.20; printing, \$177.50 . . . . .	433 70	
Repairing books, \$421.17; tuning pianos, \$40.50 . . . . .	461 67	
Expressage and labor . . . . .	516 09	
Miscellaneous supplies . . . . .	10,065 89	
		<u>\$25,810 55</u>
Less the value of exchanges . . . . .	1,303 24	
		<u>\$24,507 31</u>

The net cost of text-books and supplies is as follows: —

Stock on hand July 1, 1906 . . . . .	\$7,142 58	
Bills paid by City Treasurer . . . . .	24,507 31	
		<u>\$31,649 89</u>
Stock on hand July 1, 1907 . . . . .	\$6,672 79	
Cash paid to City Treasurer, sales and damages . . . . .	753 46	
		<u>\$7,426 25</u>
We have, net cost of all schools and officers . . . . .		<u>\$24,223 64</u>

or an average cost per pupil of \$1.620. The average cost per pupil for twenty-three years is \$1.306.

The annual cost per pupil for text-books and supplies since the introduction of free text-books is as follows: —

Year	Cost per Pupil	Year	Cost per Pupil	Year	Cost per Pupil
1885	\$1.880	1893	\$1.109	1901	\$1.203
1886	1.170	1894	1.243	1902	1.400
1887	1.061	1895	1.152	1903	1.306
1888	1.068	1896	1.436	1904	1.468
1889	0.960	1897	1.094	1905	1.434
1890	1.334	1898	1.268	1906	1.476
1891	1.248	1899	1.225	1907	1.620
1892	1.149	1900	1.740		

The cost of each grade of schools for text-books and supplies is as follows:—

	Net Expense	Cost per Pupil				
		1907	1906	1905	1904	1903
Latin School.....	\$2,022 54	\$4.136	\$3.036	\$3.182	\$3.177	\$3.463
English High School.....	2,906 94	4.894	4.425	3.356	4.153	3.564
Manual Training School...	4,589 54	10.723	9.679	10.014	9.836	16.791
Training School, Teachers.	782 04	1.127	1.126	.964	1.042	.664
Grammar Schools.....	4,001 55	1.315	1.343	1.258	1.397	1.070
Mixed Schools.....	6,622 30	1.156	.981	1.153	1.342	.907
Primary Schools.....	1,915 10	0.584	.508	.433	.441	.379
Kindergartens.....	247 87	0.353	.494	.637	.423	.428
Evening Schools.....	435 65	.....	.....	.....	.....	.....
Vacation Schools.....	6 71	.....	.....	.....	.....	.....
Special Teachers.....	68 85	.....	.....	.....	.....	.....
Officers of Board.....	71 26	.....	.....	.....	.....	.....
Miscellaneous Expenses (not chargeable to any grade).....	560 02	.....	.....	.....	.....	.....
Books exchanged.....	18 42	.....	.....	.....	.....	.....
	\$24,248 79					
Less profit on sales.....	25 15					
	\$24,223 64	\$1.620	\$1.476	\$1.434	\$1.468	\$1.306

The foregoing tables compared with those submitted a year ago, show that there is an increase of \$0.144 per pupil over last year.

This increase is largely in the cost of text-books for the high and grammar schools. New courses of study have required new text-books and equipment. There will be need of additional equipment in the Rindge Manual Training and English High schools during the coming year.

The committee again expresses its appreciation of the faithful services of the agent in his careful and economical purchases of supplies.

### SCHOOL ACCOMMODATIONS

At a meeting of the Board in December, the committee on school-houses submitted a detailed report of the work of the committee for the year. The following is taken from that report:—

In December, 1905, it was voted by the Board that a communication be sent to the city council requesting that the old Gannett building occupied by the primary pupils of the Wellington School, be replaced by an addition to the Wellington schoolhouse. This addition is of excellent construction, nearer fireproof than any other school building in the city and altogether creditable to the builder and to the superintendent of public buildings who planned and supervised its construction. The cost of the

addition to the building to December 1, 1907, was \$39,763.32, and it gives some relief to the crowded schools in this district, but it is still necessary to occupy the halls of the Fletcher and Kelley schools with classes of forty-seven and forty-three respectively. The need of increased accommodations will be very urgent in the near future, not only in this but in other districts of the city.

The requests of the Board for an addition to the English High School building and for a modern schoolhouse to replace the Thorndike were not granted. Both of these requests represent urgent needs. The ceiling of the hall of the English High School was cracked so badly that it was deemed unsafe to occupy the hall, and it has not been used for several months nor has it been repaired, though there is sore need of the hall and of the addition to the building for which the committee asked last year.

Under the amendments to the city charter, adopted December 10, 1907, the repairs and improvements to the school buildings in the future will be made by direction of the school committee and the cost will be paid from the amount allotted to the committee for school purposes.

The total expenditures for the care and repair of school buildings, except those made under special appropriation for new work on school-houses, are as follows:—

Jauitors' service . . . . .	\$42,917 44
Janitors' supplies . . . . .	2,600 40
Fuel . . . . .	29,344 36
Gas and electric lighting . . . . .	3,168 76
Repairs to buildings . . . . .	7,367 79
Repairs to furniture . . . . .	815 08
Repairs to heating apparatus and plumbing . . . . .	4,488 79
Expended for new furniture . . . . .	2,877 27
Sundry labor about school buildings . . . . .	3,587 20
<b>Total . . . . .</b>	<b>\$97,167 09</b>

### CHANGES IN TEXT-BOOKS

The following is the Rule of the School Board relating to the changes in text-books:—

"All propositions for changes in text-books shall be made by the superintendent. Whenever he recommends a change he shall appoint two persons, one of whom shall be a teacher in the service of the city, who shall make written reports on the merits of the books recommended. These reports and a like report by the superintendent shall be kept on file in the office of the superintendent, open to inspection by members of the Board only. All changes of text-books recommended to the Board shall be referred to the committee on text-books."

Under this rule the following books have been recommended by the superintendent and the committee on text-books, and adopted by the Board:—

FOR THE LATIN SCHOOL. Fossler's Material for Practical German Conversation.

FOR THE ENGLISH HIGH SCHOOL. Altmaier's Commercial Correspondence and Postal Information; Newell's Descriptive Chemistry in place of Williams's Introduction to Chemical Science.

FOR THE RINDGE MANUAL TRAINING SCHOOL. Atwood's Exercises in Algebra; Hart's Essentials in American History in place of Johnston's United States History.

FOR THE HIGH SCHOOLS. Huffcut's Elements of Business Law; Johnston and Spencer's Ireland's Story; Moore and Miner's Practical Business Arithmetic in place of Crittenden's Commercial Arithmetic.

FOR THE GRAMMAR SCHOOLS. Longfellow Memoir and Autobiographical Poems; Shaylor's Medial Series and Spencer's Practical Series of Copy Books in place of the Common Sense Copy Books and Shaylor's Round Hand.

FOR THE PRIMARY SCHOOLS. Part One of the First Book of Dunton and Kelley's Inductive Course in English in place of Hyde's Practical Lessons in the Use of English for the Third Year of School.

## LATIN SCHOOL

The following table shows the membership of the Latin School and the cost of instruction from year to year for the past five years :—

December	Average Number of Pupils	Number of Teachers in December	Cost of Instruction	Cost per Pupil	Number of Graduates
1903	474	23	\$25,472 00	\$53 74	49
1904	487	23	26,275 50	53 95	50
1905	531	24	26,711 51	50 30	70
1906	530	25	25,979 34	49 02	59
1907	489	25	26,923 42	55 06	57

The cost of the Latin School to the city is less than the above sums by the amount received for the tuition of non-resident pupils. The amount received this year was \$1,560.

The course of study is arranged for five years, or for four years, and is almost wholly decided by the requirements for admission to Harvard University. Three-tenths per cent of all the graduates have completed the work in four years. The following rules relating to the high schools were adopted in June, 1907 :—

“A pupil who has received a diploma of a Cambridge grammar school stating that he has satisfactorily completed the course may be admitted to any high school on probation without examination. Other candidates shall be required to present certificates of good character from the principals of the schools they last attended and to pass an examination showing a preparation equivalent to that required for graduation from the Cambridge grammar schools; such examination shall be held in September of each year under the direction of the superintendent. Pupils who are qualified to join existing classes may be admitted at any time on application to the head master.

“A pupil in any of the high schools who, during the first three months of the school year has failed to do the work required and who has shown a lack of reasonable effort to reach a satisfactory standard, may, on recommendation of the head master, be placed on special probation by the superintendent and if at the end of February he has not made his record satisfactory, he may, on recommendation of the head master and superintendent, approved by a vote of the committee on high schools, be required to withdraw from school. A pupil so excluded shall not be readmitted until the beginning of the next school year. A second exclusion shall be final.

“No organization of high school pupils bearing the name of the

school, shall be permitted to give musical entertainments or dramatic performances in places other than Cambridge.

"No pupil whose conduct or work in school is unsatisfactory shall be allowed to take part in any public match, performance, or exhibition, or in the editorship or business management of the school paper, under the name of any Cambridge high school or of any class thereof."

For non-resident pupils the tuition is \$80 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A. M., and end at 1.30 P. M.

### ENGLISH HIGH SCHOOL

The following table shows the membership of the English High School and the cost of instruction from year to year for the past five years:—

Year	Average Number of Pupils	Number of Teachers in December	Cost of Instruction	Cost per Pupil	Number of Graduates
1903	493	24	\$27,109 83	\$54 99	73
1904	556	24	27,070 83	48 69	76
1905	550	24	26,359 41	47 93	75
1906	570	25	27,214 24	47 74	74
1907	594	26	28,213 67	47 50	119

This school has three courses of study and has for its object the preparation of its pupils for entrance upon active life.

The general course provides a broad, liberal training for boys and girls who expect to end their academic education with the high school, and includes all subjects which are required for preparation to enter the State normal schools. All who propose to become teachers in grammar or primary schools should take this course.

The commercial course is designed to combine with studies which cultivate the mind in a broad way, certain others which give special power needed in business life. Bookkeeping and business correspondence are provided in the first year, advanced bookkeeping in the second year, commercial law in the third year, stenography in the third and fourth years, and typewriting in the second, third, and fourth years.

The domestic science course is intended for those girls who, while gaining culture of mind, wish also to train the hand in arts that are needed constantly in the home. In the second year they work in wood with tools suitable to their strength. In the third year they learn cooking by theory and practice. In the fourth year they continue their cooking, and deal with the preserving of fruits, with sanitation, and with other problems of household economy.

The requirements for admission and the rules governing the English High School are the same as for the Latin School.

For non-resident pupils the tuition is \$80 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A. M. and end at 1.30 P. M.

#### RINDGE MANUAL TRAINING SCHOOL

The following table shows the membership of the Rindge Manual Training School and the cost of instruction from year to year for the past five years:—

Year	Average Number of Pupils	Number of Teachers in December	Cost of Instruction	Cost per Pupil	Number of Graduates
1903	262	16	\$21,125 50	\$80 63	38
1904	315	19	23,167 16	73 55	30
1905	396	22	26,487 00	66 89	32
1906	440	22	29,705 66	67 51	45
1907	428	25	30,038 93	70 18	53

The cost of the Rindge Manual Training School to the city is less than the above sums by the amounts received from Harvard University for the instruction of a class of students during the summer vacation, and for the tuition of non-resident pupils. The amount received this year from both sources was \$4,262.

Each course of instruction covers four years. Proper emphasis is given to the academic features and the work is made interesting and effective by bringing it into intimate relation with instruction in the mechanic arts.

The manual dexterity and the thorough knowledge of tools, machinery, and mechanical processes acquired in the shops, at an age when time can be most easily spared for such training, is of great value in any scientific pursuit.

The sessions are five and one-half hours a day, instead of five as in the other high schools. About one-fifth of the time is given to the work of manual training, and the remainder to the subjects usually taught in high schools, with the exception of Latin and Greek.

The requirements for admission and the rules governing the Rindge Manual Training School are the same as for the Latin School.

For non-resident pupils the tuition is \$150 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A. M. and end at 2 P. M.

The following is from the report of the committee on high schools:—

In the present year many important and difficult questions have had



to be met in the changes in the administrative and teaching force of our high schools. The Board at its first meeting in January received the resignation of Mr. Charles H. Morse, who had been head master in the Rindge Manual Training School since the death of Mr. Harry Ellis. Mr. Morse was paid the honor of being appointed as the first secretary of the new Massachusetts Commission on Industrial Education, and so Cambridge had the honor of furnishing to the State the first secretary and executive officer of the commission, and also its chairman, Prof. Paul H. Hanus, who was formerly a member of this committee.

The vacancy caused by the resignation of Mr. Morse was filled by the election of Miss Myra I. Ellis as acting head master for the remainder of the year. Miss Ellis has been a teacher in the school since 1889, and was serving as master's assistant when elected acting head master.

On February 12 the English High School met with the loss by death of Dr. Edwin Lawrence Sargent, a teacher in the high schools of Cambridge for more than twenty-five years.

In the Latin School at the close of the school year the resignations were received and accepted of Miss Constance G. Alexander and Mr. Max Benshimol, efficient teachers in the school for fourteen and ten years respectively. The number of teachers in the school is the same as last year, but there is one more man and one less woman in the corps.

The number of pupils registered in our high schools since the opening of the schools in September has been one thousand seven hundred thirty-one. This number exceeds the number registered in any previous year, and reminds us that the time is not far distant when we shall enroll the names of two thousand pupils in our high schools. The total number registered in the Latin School from the opening of the school until the time of writing this report, is five hundred forty-nine, but four more than last year. It seems to us doubtful whether there will be any marked change in the number of pupils in this school for some time in the future. Four boys in the school are receiving the benefits of the Hopkins scholarship for 1907-1908. The Hopkins prizes were awarded to Donald Clinton Barton for the boys in the school and to Lillian Frances Thain for the girls.

It was mentioned in our last report that Mr. William F. Bradbury had completed a period of fifty years as teacher and master in the Cambridge high schools. In recognition of his long and faithful services, exercises were held in the hall of the Latin School on the evening of January 3, 1907, at which in the presence of his friends, teachers in the city, and alumni of the school, an oil portrait of Mr. Bradbury, painted by Mr. George A. Frost, was presented to the city to be hung in the school hall. The portrait was accepted by His Honor the Mayor on behalf of the city.

The teachers of the school presented to Mr. Bradbury a French clock, and graduates and citizens honored him by the gift of a beautifully bound volume containing the autographs of graduates of the high schools.

The sum contributed was more than enough to pay for the portrait of Mr. Bradbury, and the surplus was used for the purchase of a hall clock for his home.

The following are the letters from the committee appointed to buy the clock and from Mr. Bradbury:—

CAMBRIDGE, MASS., January 31, 1908.

MR. WILLIAM F. BRADBURY,

*Head Master, Latin School, Cambridge, Mass.*

DEAR SIR:— Your portrait hangs in the Latin School hall, a testimonial of the esteem in which you are held by those who have come into close relation to you. So general was the desire that some expression of this esteem should be made that the sums contributed for the portrait exceeded the amount required. The question then came, how shall the surplus be used? It was decided that it should be for some article for your home rather than for the school. With Mrs. Bradbury's approval a clock was selected.

As the years come and go, may it often remind you of your former pupils, of your many friends, and of the long and successful service you have rendered the city.

Very truly yours,

WILLIAM TAGGARD PIPER.

FRANCIS COGSWELL.

J. HENRY RUSSELL.

*Committee for Expenditure of Money not Required for Portrait.*

CAMBRIDGE, MASS., February 11, 1908.

MR. WILLIAM TAGGARD PIPER,

*Chairman of Committee.*

MY DEAR MR. PIPER:— Through their well chosen committee again I have to thank the alumni of the Cambridge Latin School and their friends for their continued kindness in supplementing their generous gifts of last year with the beautiful colonial clock recently received and in stalled in my home.

Its stately presence and its musical chimes are a constant reminder of the hosts of friends who by their loyalty and friendship have made the last half century an almost unbroken period of joyful service.

To the committee who have had charge of the testimonials presented to me, to the graduates of the schools, both of the Cambridge High and Latin, and to all other friends who have so generously contributed, I desire to express my warmest regards and most heartfelt gratitude.

Sincerely yours,

WILLIAM F. BRADBURY.

While the registration in the English High School since the opening in September is a few less than last year, the registration in the entering class has been larger than ever before. One hundred eighty-nine pupils, or seventy per cent of the class, the same per cent as last year, have selected the commercial course, which continues to show its popularity in spite of the fact that there is no immediate prospect of having a suitable room and equipment provided for practical instruction in commercial subjects. The work of dressmaking, delayed for five years because there was no fit place for instruction in this subject, has been undertaken the present year, permission having been granted by this committee at the urgent request of about thirty girls. The course is given in a room in the basement of the building, the same room in which the cooking classes do their work. This room is not well lighted and it has no ventilation. The appliances for both kinds of work can be put into the same room, and such interference as the two kinds of work involve can be endured while the classes are small, but as soon as conditions will allow, a separate room should be provided for the dressmaking, as has long been contemplated.

The changes in the commercial course have gone into operation with the third and fourth classes during the current year. This brings additional work to each pupil in that course and makes additional demands for recitations and recitation rooms. This increase will continue for the next two years. The proper development of the commercial course, while demanding more teachers and more rooms, would certainly require that at least one of the new rooms, when provided, should be so fitted as to furnish means for practical work in bookkeeping, a provision which is common in city high schools.

The work in the English High School is already crippled on account of lack of room. The closing of the assembly hall by order of the superintendent of public buildings, in order to avoid all possibility of danger to the pupils from the condition of the ceiling, has deprived the teachers and pupils for a greater part of the year of the opportunity to meet as a school for devotional exercises, on special occasions, and for choral singing.

It became the duty of the superintendent of schools in consultation with this committee, after the resignation of Mr. Morse, to select his successor as head master of the Rindge Manual Training School. It was the opinion of this committee, after carefully considering the qualifica-

tions of the different applicants outside the city, that we had among the teachers of this school men equal, if not superior, in ability and experience to any outside applicant. Consequently, it was voted by a majority of this committee to approve the nomination, as head master, of Mr. John W. Wood, Jr., a graduate of the Rindge Manual Training School, who since his graduation from college had been an instructor in the school.

With this change at the head of the school, came a request from Miss Ellis, the master's assistant who had served temporarily as head master, for permission to be absent for one year for the purpose of travel or study, which permission was granted; and we also received the resignation of five teachers, a majority of whom were strong and popular teachers in the school, but the much larger salaries which they were to obtain elsewhere made it impossible for us to retain them.

In September these vacancies had to be filled, and the increase in the number of pupils, together with the development of the commercial course, made it necessary to increase the number of teachers in the corps; so that when the school opened more than one-third of the teachers were new and untried in the peculiar work and management of a manual training school for boys. Notwithstanding the difficulties incident to so many changes in the teaching force, the school is enjoying a prosperous year.

The total number of pupils registered from the opening of the school to the present time is five hundred thirty-nine, seventy-two more than last year. If this increase continues the result will be felt in several ways. In the first place, our machine shop accommodations will prove inadequate. This difficulty will have to be met either in preparing a room in the basement for the first year in machine work, or by an enlargement of the present building. In addition, some new equipment will be necessary in order to replace worn-out machines and to keep our equipment up to date. This new machinery should be of such a type as to make it possible for the school to build the new speed lathes which are already needed and also to replace parts of the present equipment as they are worn out and broken by the ordinary wear and tear. Such equipment would more than return the amount expended upon it by the saving from these replacements and renewals. Another difficulty which arises from the increase in membership in the school is the great inconvenience caused by the narrow subway connecting the three buildings. Either a new subway between the Washington building and the shop building should be constructed, or the subways in use should be enlarged.

The commercial course which was introduced into this school a year ago last September has been in operation long enough for us to form some estimate of its popularity and value. Out of a class of one hundred seventy-seven boys who had been in the school one year, fifty-two selected

the commercial course. Boys who have shown little aptitude for the study of other branches have entered into the work of the commercial department with real enthusiasm, and the stimulating effect of their success in the new department has improved their standing in all their classes. The commercial course promises to become very popular, and even with the number in this class at the present time an additional teacher will be needed next year to teach stenography as well as bookkeeping.

As time goes on if we expect to keep the Rindge Manual Training School in line with the best manual training schools in this country, the need of an electrical laboratory, as recommended last year, becomes more apparent. The part played by electricity in modern life grows more and more important as the fascination and usefulness of the study combine to make it a very valuable part of a boy's education.

Pupils in the fourth year of the general course who have come to a definite conclusion as to the mechanical occupation which they intend to follow after leaving school, should have the privilege of specializing in order to make the last year of their schooling of more practical value to themselves as well as to their employers.

#### MANUAL TRAINING IN OTHER SCHOOLS

The statutes require that every town and city of twenty thousand or more inhabitants shall maintain, as part of both its elementary and its high school system, the teaching of manual training. The Rindge Manual Training School gives the required instruction to boys of the high school grade, and provision is made in the English High School for girls of this grade, sloyd and dressmaking being taught in the second year, and cooking in the third. Sewing in the grammar schools may be considered as meeting the requirements for the girls in the grammar school grades.

The following is from a report of the instructor in manual training:—

A change in the course of study for 1907-1908 provides that boys of the eighth grade shall have one hour a week for manual training. In accordance with this, six classes of the eighth grade in the following schools are now taking up this work,—the Fletcher, Kelley, Putnam, Roberts, and Wellington.

This is accomplished by using the Roberts manual training room as a center, the three grammar schools within reasonable distance sending classes for the whole of the afternoon session once every two weeks. The Putnam manual training room is used only by the two classes of the eighth grade belonging to that school.

In the limited time allowed, a small amount of elementary work only can be accomplished, as there has been no previous training. The course at present consists of a few simple, useful models; the aim being to teach

thoroughly a few of the principal operations of wood-work while developing forethought and individual initiative.

There seems to be no reason now why the boys of the eighth grade in the Thorndike School should not have manual training at the Putnam School. When this is done Cambridge will be doing all she can with her present equipment, and no further substantial advancement can be made in the upper grades until more rooms for instruction in manual training and another teacher are provided. There is, however, a large field in the lower grades where work can be carried on by the grade teacher, at a moderate expense, under the direction of the instructor in manual training.

#### WELLINGTON TRAINING SCHOOL

This school was opened in September, 1884, and differs from the other schools in this respect, — all the grades, except the eighth and ninth, are taught by young teachers. Their work, however, is done under the immediate supervision of a master and three assistants, who are held responsible for the instruction and management of the school. For several years the seventh grade has been taught by a graduate of the training class.

The object of conducting a school on this plan is to give Cambridge young women who desire to teach, and who have made special preparation for the work, an opportunity to gain experience under conditions favorable to their own success, and without prejudice to the interest of their pupils.

Graduates of the English High School or of the Latin School, who have also graduated from one of our State normal schools, are preferred candidates for the position of teacher in this school. Other persons of equal preparation may be appointed.

The required term of service is one year. Teachers are appointed on probation, and may be excused or dismissed at any time by the superintendent, with the approval of the committee on the training school.

No teacher is considered a graduate of the school until by vote of the training school committee she is admitted to the graduate class, which is known as Class B.

The money compensation for the first three months, and until satisfactory service is rendered, is at the rate of two hundred dollars a year. For the remaining part of the year it is at the rate of two hundred fifty dollars.

Graduates temporarily employed as teachers in this school are paid at the rate of three hundred dollars a year. Graduates selected to act as substitutes in any school are paid at the rate of four hundred fifty dollars.

That the direct influence of the school may be continued, it is the duty of the master, or one of the supervising teachers, occasionally to visit the schools of the graduates who are teaching in Cambridge. The

school contains all the grades of the grammar and primary schools and a kindergarten.

By the Rules of the School Board the superintendent is authorized to employ as many substitutes and temporary teachers as may be necessary to take the places of absent teachers. These teachers are usually assigned to the Wellington School, when not otherwise employed, that there may be at this school a sufficient number of teachers to make it practicable for the members of the training class to visit other schools.

The following is from the report of the committee on the Wellington School:—

The Wellington schoolhouse has been enlarged by the addition of six large, airy classrooms, which are models of beauty and convenience. This addition makes it the largest grammar school building in the city.

In the construction of these rooms, and in remodelling the assembly hall, the superintendent of public buildings has been satisfied with nothing short of the best in the materials used and he has availed himself of the latest improvements in lighting, heating, and ventilation.

The beautiful new assembly hall deserves more than passing mention. It is a spacious room with a seating capacity of seven hundred. Its walls are finished in rough plastering and are painted in colonial yellow, while the ceiling is painted cream white. These colors blend harmoniously with the ash woodwork finished in its natural color. Its many windows give ample light by day, while in the evening it can be brilliantly lighted by electricity. The gallery in the rear adds much to the architectural beauty of the room and forms a most convenient place from which to operate the lantern. A hall like this has long been needed in the Wellington district for both educational and social purposes, and the large audiences that have assembled here prove that it is appreciated.

Your committee recommends that such alterations and repairs as are urgently necessary to safety and health be made at once on the old part of the Wellington schoolhouse. It would be good economy to establish a uniform system of heating throughout the building by removing the furnaces and installing another boiler to do the work of those furnaces. If this were done the expense of heating would be lessened and the safety from fire greatly increased.

Since September, 1906, twenty young women have been admitted to the probation class. Of this number, sixteen have succeeded in accomplishing the work required and have graduated from the school; four have withdrawn to teach in other places or to take up duties of a different nature.

The year has been on the whole a successful one, and the outlook for the future of the school is bright.

### GRAMMAR SCHOOLS

The number of pupils in these schools on the first of December was seven thousand four hundred, and the number of teachers, including the masters and special teachers, was one hundred ninety-nine.

The cost of instruction for each pupil for the year has been \$21.59. This does not include the cost of supervision or the cost of the Wellington School.

For non-resident pupils the tuition is \$30 a year, payable one-half at the beginning, and the other half at the middle of the school year.

The course of study is for six years, but the schools are so classified as to give the pupils an opportunity to complete the course in four years, or in five years. The average age of those who entered the grammar schools last September was nine years seven months. The number of graduates in June was seven hundred thirty-five, their average age being fourteen years nine months. Of these, 6 per cent completed the course in four years, 27 per cent in five years, 50 per cent in six years, and 17 per cent in seven years or more.

Pupils are promoted by classes from the primary schools at the beginning of the autumn term: but individual pupils may be promoted at other times, if it is deemed expedient by the supervisor of primary schools and the superintendent.

Promotions from grade to grade in the grammar schools, and from the grammar to the high schools, are made by the teachers under the direction of the masters and the superintendent. Pupils qualified to join existing classes may be admitted at any time on application to the master of the school. No regular preannounced examinations are held in these schools, but the results of such written exercises and reviews as the teachers and masters may require from time to time may be used as a part of the basis of promotion.

The thoroughness with which the work is done in the grammar schools is shown in part by the ability of the pupils to do the work in the high schools. The pupils are admitted to the high schools on trial, and a pupil in any of the high schools who, during the first three months of the school year has failed to do the work required and who has shown a lack of reasonable effort to reach a satisfactory standard, may, on recommendation of the head master, be placed on special probation by the superintendent, and if at the end of February he has not made his record satisfactory, he may, on recommendation of the head master and superintendent, approved by a vote of the committee on high schools, be required to withdraw from the school. A pupil so excluded shall not be readmitted until the beginning of the next school year. A second exclusion shall be final.



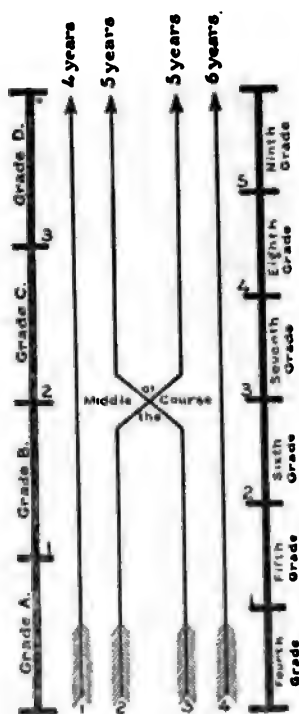
In the grammar schools, special teachers are appointed to help such pupils as seem able to do the work in less than six years, and to aid those who without personal instruction would require more than six years. This action of the committee removes the most serious objection to the graded system of schools.

The course of study is divided in two ways: (1) into six sections; (2) into four sections; each section covering a year's work. Pupils taking the course in six years are classified in six grades, called the fourth, fifth, sixth, seventh, eighth, and ninth grades. Those taking it in four years are classified in four grades, called grades A, B, C, and D. When pupils are promoted to the grammar schools they begin the first year's work together. After two or three months they are separated into two divisions.

One division advances more rapidly than the other, and during the year completes one-fourth of the whole course of study. The other division completes one-sixth of the course.

During the second year the pupils in grade B are in the same room with the sixth grade. At the beginning of the year they are five months (one-half the school year) behind those in the sixth grade. After two or three months grade B is able to recite with the sixth grade, and at the end of the year both divisions have completed one-half the course of study—the one in two years, and the other in three years. The plan for the last half of the course is the same as for the first half, the grades being known as the seventh, eighth, and ninth, in the one case, and as C and D in the other.

There are also two ways of completing the course in five years: (1) any pupil who has completed one-half the course in two years may, at the end of that time, be transferred to the seventh grade, and finish the course in three years; (2) any pupil who has completed one-half the course in three years may, at the end of that time, be transferred to grade C, and finish the course in two years. In both cases these changes can be made without omitting or repeating any part of the course.



Arrow No. 1 indicates the four years' course; grades A, B, C, D. Arrow No. 2 indicates one of the five years' courses; grades A, B, 7, 8, 9. Arrow No. 3 indicates the other five years' course; grades 4, 5, 6, C, D. Arrow No. 4 indicates the six years' course; grades 4, 5, 6, 7, 8, 9.

It is now sixteen years since the schools were first classified on this plan. During this time nine thousand four hundred fifty pupils have graduated from the grammar schools. Of this number, 7 per cent completed the course in four years, 29 per cent in five years, 49 per cent in six years, and 15 per cent in seven years or more.

Of the number who entered the Latin School from the Cambridge grammar schools during the past thirteen years and remained a year, 15.4 per cent did the work in the grammar schools in four years, 42.9 per cent in five years, 38.7 per cent in six years, and 3.0 per cent in seven or more years. Of those who entered the English High School from the Cambridge grammar schools and took the general course and remained a year, 8.2 per cent did the work in the grammar schools in four years, 35.7 per cent in five years, 45.2 per cent in six years, and 10.9 per cent in seven or more years; of those who took the commercial course 7.6 per cent did the work in the grammar schools in four years, 32.2 per cent in five years, 50.5 per cent in six years, and 9.7 per cent in seven or more years. Of those who entered the Rindge Manual Training School from the Cambridge grammar schools and remained a year, 4.0 per cent did the work in the grammar schools in four years, 31.4 per cent in five years, 52.5 per cent in six years, and 12.1 per cent in seven years or more.

During the past thirteen years more than 45 per cent of the pupils entering the high schools from the Cambridge grammar schools did the work in the grammar schools in less than six years, 36.1 per cent doing it in five years, and 9.3 per cent in four years.

It does not follow, however, that because so many did the work in less than the full time that the plan is a good one. Its value is shown, rather, by the thoroughness with which the work has been done, not in one year only, but in a series of years. The results of the first year's work in the high schools would seem to be a test of this thoroughness. The records in these schools show that for thirteen years the marks of the pupils who were four years in the grammar schools were higher than were the marks of those who were five years in the grammar schools; and that the marks of those who were five years in the grammar schools were higher than were the marks of those who were six years in the grammar schools.

The average per cents of the first year's work in the different high schools for thirteen years are as follows : —

In the Latin School, the average per cent of the pupils who completed their grammar school course in four years is 79.7; of those who completed it in five years, 75.4; of those who completed it in six years, 72.2.

In the general course in the English High School, the average per

cent of the pupils who completed their grammar school course in four years is 78.1; of those who completed it in five years, 75.6; of those who completed it in six years, 72.7.

In the commercial course in the English High School, the average per cent of the pupils who completed their grammar school course in four years is 73.9; of those who completed it in five years, 72.6; of those who completed it in six years, 70.3.

In the Rindge Manual Training School, the average per cent of the pupils who completed the grammar school course in four years is 71.9; of those who completed it in five years, 69.0; of those who completed it in six years, 68.3.

The following tables will be of interest as showing the results of the first year's work in the high schools of the thirteen classes from 1895 to 1907 inclusive:

#### IN THE LATIN SCHOOL

RECORD OF THIRTEEN DIFFERENT CLASSES	FOUR YEARS IN GRAMMAR SCHOOLS	FIVE YEARS IN GRAMMAR SCHOOLS	SIX YEARS IN GRAMMAR SCHOOLS
First Year in High Schools	Average per cents in High Schools	Average per cents in High Schools	Average per cents in High Schools
Class of 1895.....	78.7	78.9	76.4
Class of 1896.....	80.4	77.0	71.6
Class of 1897.....	79.3	72.5	66.9
Class of 1898.....	77.1	72.3	67.8
Class of 1899.....	80.0	73.0	61.8
Class of 1900.....	81.1	75.9	75.4
Class of 1901.....	79.6	75.2	70.1
Class of 1902.....	81.0	77.5	74.7
Class of 1903.....	83.0	79.1	74.7
Class of 1904.....	81.0	76.6	75.9
Class of 1905.....	78.2	77.8	73.5
Class of 1906.....	79.0	70.6	70.1
Class of 1907.....	78.1	74.4	74.5

#### IN THE ENGLISH HIGH SCHOOL, GENERAL COURSE

Class of 1895.....	77.3	76.2	73.4
Class of 1896.....	85.9	75.1	76.4
Class of 1897.....	79.7	78.7	72.2
Class of 1898.....	77.6	75.8	77.0
Class of 1899.....	75.6	75.1	69.1
Class of 1900.....	79.2	73.4	71.1
Class of 1901.....	72.8	75.2	75.2
Class of 1902.....	82.2	75.3	74.3
Class of 1903.....	86.6	77.0	72.7
Class of 1904.....	75.3	76.6	75.4
Class of 1905.....	76.7	75.3	74.0
Class of 1906.....	78.1	74.6	70.3
Class of 1907.....	70.3	73.4	68.0

## IN THE ENGLISH HIGH SCHOOL, COMMERCIAL COURSE

OF THIRTEEN ST CLASSES	FOUR YEARS IN GRAMMAR SCHOOLS	FIVE YEARS IN GRAMMAR SCHOOLS	SIX YEARS IN GRAMMAR SCHOOLS
Year in High Schools	Average per cents in High Schools	Average per cents in High Schools	Average per cents in High Schools
1895.....	73.7	73.5	69.8
1896.....	74.8	70.9	68.4
1897.....	76.3	69.0	69.3
1898.....	75.7	73.8	69.5
1899.....	69.5	68.5	68.9
1900.....	69.2	73.6	72.5
1901.....	76.0	73.6	70.5
1902.....	74.9	75.5	73.3
1903.....	74.3	76.6	70.9
1904.....	72.7	73.1	69.6
1905.....	75.7	74.1	69.8
1906.....	68.7	70.9	70.1
1907.....	81.0	72.6	70.9

## IN THE RINDGE MANUAL TRAINING SCHOOL

1895.....	72.6	65.4	65.9
1896.....	79.3	63.5	65.2
1897.....	78.6	67.2	61.7
1898.....	81.7	69.5	68.9
1899.....	....	67.5	67.8
1900.....	72.6	69.6	68.0
1901.....	80.0	67.8	68.4
1902.....	80.4	71.9	69.2
1903.....	70.4	73.5	70.3
1904.....	76.2	71.6	68.7
1905.....	64.8	68.7	68.7
1906.....	53.2	66.3	66.3
1907.....	75.9	70.7	71.5

the results already given are based on the first year's work in the schools. For seven years results have been obtained based on the course in the high schools. During these seven years, four hundred pupils have graduated from the Latin School. Of these four hundred, three hundred eighteen were graduates of the Cambridge grammar schools. Of these three hundred eighteen, sixty-six did the work in grammar schools in four years, and their average per cent for the school course was 81.2; one hundred sixty-four did the work in the grammar schools in five years, and their average per cent for the Latin course was 76.5; eighty-four did the work in the grammar schools in six years, and their average per cent for the Latin School course was 70.8.

During the seven years five hundred sixty-two pupils have graduated from the English High School. Of these five hundred sixty-two, four

The pupils like the system, and the knowledge that they may be transferred to another class at any time has caused them to put forth that amount of effort throughout the year that we were accustomed to observe only during the spring term.

The parents have been interested in the plan and whenever it has been necessary to place a pupil in a lower class it has not produced the opposition we formerly encountered.

Through the co-operation of the supervisor of primary schools no break has occurred between the third and fourth grades, and pupils have been passed back and forth between them as readily as between classes in our own building.

At the end of June, under this system, seventy-one pupils had been advanced to rooms of a higher grade. Of these, six pupils had completed two years' work, twenty pupils one and a half years' work, and forty-five pupils one and a fourth years' work. This made an average gain of three and eight-tenths school months for seventy-one pupils in a school with an average membership of six hundred fifteen. This does not include pupils advanced from one class to another in the same room.

In June, after the ninth grade had graduated, an opportunity for re-classification was afforded. Pupils were grouped into new classes according to the recommendation of their teachers; then oral and written tests were given. These tests did not furnish conclusive proof of the degree of advancement attained, but in the majority of cases were valuable aids to the work of classification. New classes came from the primary schools in September, and we started on our second year of this experiment with each teacher commencing the work where the class assigned to her had left it in June.

The value of any system of grading must be determined by the results, and more than one year's trial is necessary. However, certain results have been observed.

1. Pupils are interested in their work throughout the whole year.
2. Few pupils appear discouraged, as it was possible in June to advance all of at least two classes.
3. Fewer cases for discipline have been brought to my attention during the last five months than in any corresponding period.
4. Most of the teachers report "better" classes than they have had previously.
5. Pupils acquire greater self-reliance and the power to study with two classes in a room.

It is not to be inferred that we have found a solution for all difficulties. No system of grading will make all pupils proficient in their studies. Some can be trained to become skilful with their hands, but they will

never advance far beyond the elements of the "Three R's." These pupils must be furnished with courses in manual training.

We are pleased with what we have accomplished. We hope that fewer pupils will leave school without completing the grammar school course, and that better prepared pupils will be sent to the high schools.

### PRIMARY SCHOOLS

The number of pupils in these schools on the first of December was one thousand seven hundred sixty-seven, and the number of teachers was one hundred forty-three.

The cost of instruction for each pupil for the year has been \$16.98. This does not include the cost of supervision or the cost of the Wellington School.

For non-resident pupils the tuition is \$20 a year, payable one-half at the beginning, and the other half at the middle of the school year.

The course of study is for three years. Children five years old are admitted to the first grade at the beginning of the school year and during the first week in March. Pupils qualified to join existing classes may be admitted at any time on application to the principal. At the present time 39.8 per cent are in the first grade, 29.5 per cent in the second, and 1.7 per cent in the third.

One thousand four hundred sixty-seven pupils were promoted to the grammar schools last June at an average age of nine years five months. Of these, 4 per cent completed the course of study in less than three years; 61 per cent in three years; 3 per cent in three and a half years; and 32 per cent in four years or more.

Promotions from grade to grade in the primary schools, and from the primary to the grammar schools, are made by the primary teachers, under the direction of the supervisor of primary schools and the superintendent. Promotions by classes are made annually at the beginning of the autumn term; but individual promotions are made at other times if it is deemed expedient by the supervisor of primary schools and the superintendent.

Pupils are promoted to the grammar schools on trial, and those who show by their work that they are unprepared are returned to the primary schools on the approval of the supervisor of primary schools and the superintendent.

Once a month the teachers of each primary grade meet the directors for special studies and the supervisor of primary schools. These meetings are held in the English High School building on Wednesday afternoons, half an hour after the close of the schools. The work for the coming month is planned; criticisms and suggestions in regard to the methods are made; and questions from the teachers are answered and discussed.

Health has been a leading topic at the monthly meetings of the mothers. Among the subjects considered at these meetings are: Care of the eyes, nose, and throat; relation of school to home; health hints by deep breathing; hints on cooking; prevention better than cure; the work of the Cambridge Training School for Nurses; the prevention of scarlet fever; deformities of children; window gardening; what I desire for my child; hygiene; discipline in kindergarten and at home; general hygiene and when to call a doctor; diaphragmatic breathing; cooking; work of the district nurses; value of correct breathing.

The following is from the report of the committee on kindergartens:—

The mothers' clubs continue to be a source of gratification. Each year these clubs find new ways and larger means to benefit the kindergartens. The sympathy and co-operation fostered by these mothers' meetings are of the greatest value to the schools.

The kindergarten that meets at the Willard School in the afternoon should have a place where its sessions could be held in the morning. The attendance is excellent and the kindergarten is in a good condition; but the children lose nearly an hour of training each day because the afternoon session in all schools is shorter than the morning session, and the teachers lose the meetings in Boston provided for the study of weekly programs. The afternoon session is also a serious embarrassment to the mothers' meetings of both the district served by the morning kindergarten and the district from which the children of the afternoon kindergarten are sent.

### SPECIAL STUDIES

The committee on special studies has supervision of the instruction in nature study, drawing, music, sewing, and physical and industrial training in the grammar and primary schools.

### NATURE STUDY

The work in nature study includes the study of plant and animal life with some study of minerals and of weather phenomena.

The study of plants was first undertaken, and still makes up the larger part of the work. The study of animal life consists mainly of lessons on insects and birds. The work with minerals is confined to lessons on common metals and on building stones.

Plants are studied in grades one to four, inclusive; insects in grades one, two, and four; birds in grade four; weather phenomena in grades one to three, inclusive; and minerals in grade four.

Specimens chosen for study are those in which the pupils have a present interest, and all work is based on present experience. It is kept all within the capabilities of the children, yet novel enough to require their best effort. Whenever it is possible, the nature study is made to correlate with the work in other branches.

The results sought are increasing knowledge of facts gathered by observation; familiarity with environment; and a growing sympathy with nature.

The following is the report of the director of nature study to the supervising committee:—

In presenting this report I wish to speak first of what we are now doing in nature study; and, second, of what we need, and of what we would like to do.

We are teaching the pupils to observe the world around them, its animals, plants and minerals, and its weather phenomena, to think about what they see and to put their thoughts into words.

We do not have to create an interest in nature. The interest exists ready. This is a study in which the children learn because they want to know, not because we urge the knowledge upon them.

We are working from a very simple course of study, the simplest in use anywhere so far as I know, yet one which meets the requirements of experts in the work. We have grown so familiar with the course and its underlying principles that the work is not burdensome in any grade.

We are doing an almost uniform quality of work throughout the city. There are, of course, slight differences due to the development of the children, the environment of the school, or the temperament of the teachers, but there is no one school or district which is our show school. There are many teachers who are ready and able to do more than the required work.

We need more material to work with. This need, mentioned in last year's report, has been met in part by supplies sent in from the country, which the city has paid the express. We have also a generous offer of help from the park department which is duly appreciated.

We need a few reference books for teachers' desks. We need some provision for the study of animal life, especially bird, insect, and water life. We need cabinets of some sort in which to store the useful material which is accumulating.

We need window boxes in those buildings in which there is no protected yard space for gardens, and we need emphatically your influence providing for the care of these boxes, gardens, and plants in those places where the teachers have taken upon themselves the task of providing these things.



Lastly, we need higher grades to work with in order to fix the habits formed and the knowledge gained in the first four years.

These things, with the exception of the books, are not costly. Our teachers in many instances have begun to provide them for themselves. They are ready to continue to do so. It has always been true, I think, that progressive teachers spend for their schools. We have many in Cambridge who do so.

I am not forgetting for a moment the need of economy. I am simply bringing into the foreground for the time being the needs of the children and the work. I am assuming that it is a part of my duty, as the specialist employed by you to guide the work, to know what is being done elsewhere and to sift out what is of permanent value from what is unessential, to weigh the merits of different phases of nature study and their place in the education of the pupils, and to call your attention to what would, in my judgment, be of value to the children in the city of Cambridge.

At a time when people everywhere are commenting on our bookish school work and asking for something more practical, when courses of study in geography and arithmetic are being altered to meet this demand, when the secretary of the Massachusetts State Board of Education, the manager of a large business firm, and the official head of our chief city unite in asking for our schools more land to cultivate so that the children may receive knowledge which will fit into the working life, we might be justified in making a plea for an extension of the work in nature study. Refusing to go to extremes, we might recognize the value of the work and step by step, in accord with the tendency of the times and especially in accord with the best interests of the city and the children, build up what is best in nature study.

### DRAWING

The course of instruction in drawing in the primary and grammar grades includes form, color, and designing.

The study of form (pictorial representation) is carried through all the grades upon a plan involving type solids and natural forms of leaves, flowers, and fruit. Construction drawing of objects and of simple original ornaments is gradually developed by progressive exercises. Geometrical drawing is introduced in the sixth grade and continued through the advanced grades. Drawing from nature receives special attention during the spring and autumn months.

Color is studied in all the grades, colored tablets being used in the primary grades and water colors in the grammar grades. Harmony and

mixing of colors are treated as a science in special exercises; while color skill is artistically expressed in original designs and in nature study.

In design, particular attention is given to subjects involving fundamental principles of symmetry, balance, etc., and to methods of working out simple, specific problems in construction and in decoration.

In the English High School, drawing is a required study the first year, and is carried forward upon a plan of which the following is an outline:—

Drawing from objects and from casts, drawing from nature of plant form, drawing to scale, designing (constructive and decorative), and color harmony.

Drawing, designing, or water-color painting, may be taken as an elective study after the first year. The course of lessons includes landscape, still-life, and advanced designing.

In the English High School, the instruction in drawing is given by the director of drawing and his assistant. In the primary and grammar grades, it is given by the teachers under the supervision of the director and his assistant. In the Rindge Manual Training School, there are four teachers of drawing, two of mechanical drawing and two of free-hand, and the work is done under their immediate instruction.

The director of drawing conducts a teachers' class at which the attendance is voluntary.

This class meets at the English High School on Tuesdays, after the close of the afternoon session. The total membership of the class is ninety-three and the average attendance is seventy-one.

## MUSIC

The New Educational Music Course is used by the regular teachers in the primary and grammar grades under the supervision of the director of music and his assistant. In the high schools the music is conducted by the director. Every pupil who is capable of learning to sing is required to give attention to the subject.

In the Latin, English High, and Rindge Manual Training schools forty-five minutes a week are given to the study of musical form and expression as found in choruses, quartettes, etc., from the standard oratorios and operas.

Elementary harmony, counterpoint, and composition have been introduced as elective studies for the first and second classes, and boys as well as girls having a special aptitude for music naturally elect these studies, the only requisite being some knowledge of the pianoforte. Pupils of the

fourth year in the English High School may elect harmony in place of astronomy, and those intending to go to a normal school are advised to take the course in harmony.

The students are instructed in scale formation, intervals, and a logical and comparative view of all true chords, in order to give them the power to construct and resolve these chords for themselves.

The study of harmony is carried well into modulation, and the study of counterpoint is carried through the four simple orders or species, including both the major and minor modes.

Two periods of fifty minutes each week are devoted to instruction, and occasionally the best compositions of the students are sung or played before the entire school, showing in this way the practical side of the work, which will prove an important factor in future teaching.

In the Rindge Manual Training School, the young men are taught to sustain their parts, without accompaniment, in compositions of four part harmony, (first tenor, second tenor, first bass and second bass) the music being selected and arranged for this purpose.

Fifteen minutes a day in the primary and grammar grades are devoted to this study; and pupils in the grammar grades are taught to sing and sustain their parts in reading compositions in two, three, and four parts.

Memorizing music is a feature in all the grades, including the high schools, and in all graduating exercises it is expected that the music by the pupils will be sung or played without notes. To this end rote singing in all the schools forms a part of the instruction in reading music.

### PHYSICAL TRAINING

The Ling system of physical training is used in the schools. Seven grades are regularly supervised, the classes of the eighth and ninth grades being visited by the director only when special request is made by their teachers.

The instruction is given daily by the regular teachers in their respective classrooms under the supervision of the director of physical training, who visits each class as often as time will permit, and who also meets the teachers for special instruction from time to time.

Daily in the grammar grades ten minutes are allowed and in the primary grades fifteen minutes. During the months of September, October, November, April, May, and June, the primary classes have the privilege of outdoor recesses, while during December, January, February, and March the time is spent in games and marching.

The essential aim of all the teaching in physical training is to make the period one of recreation and healthful exercise, thus counteracting in part the tendency to spinal curvature and flat chest caused so often by sitting so many hours a day at the school desk.

### SEWING

Sewing is taught to the girls of the three lower grades in the grammar schools, and to the boys of the fourth grade who desire the instruction, the regular teachers having charge of the work of the boys.

The following is the course in sewing: *Fourth Grade.* Running, basting, stitching, sewing on buttons, overhanding, and making pin-balls. *Fifth Grade.* Hemming, gathering, stroking gathers, model apron, overcasting, and model pillow-case. *Sixth Grade.* Buttonholes, darning on canvas, darning a thin place in stocking, darning a hole in stocking, and matched patching.

Forty minutes are given to the work once a week in each grade. Throughout the course great care is taken in securing the ends of the thread in beginning, joining, and fastening off.

The first lessons in sewing are spent in learning the use of the thimble and needle, in threading the needle, making knots, and fastening ends. Running stitches are made during this time on ruled pieces of cloth. Neatness is insisted upon from the beginning. Stamped patterns of stars or circles are worked in running stitches by the more forward. Then basting by measure is taught. Measuring cards are provided for this, and the stitches are made one-half inch in length, with spaces of one-eighth of an inch. All work is upon practice pieces with colored thread. The first piece has three lines for running stitches and two for basting.

The second practice piece is of double cloth and has two lines of basting. On this piece stitching is taught, the children imitating machine stitching as nearly as possible. Two lines are done by all, and four lines by the best sewers, who also stitch their initials in the center.

Buttons are brought from home for the third practice piece. Strips of cloth for this are basted by those who finish stitching before the others. The shoe button comes first as the simplest, then the two-holed button, then the four-holed.

The pupils who finish buttons first, baste strips for overhanding. This is the last stitch taught to this grade. Those who wish bring pretty pieces of cloth and make pin-balls. At the end of the year the boys take home all their work. The girls keep theirs for reference the next year.

The work in the fifth grade begins with folding and basting hems, the practice piece having a half inch hem on one edge and a quarter inch

hem on the other. Hemming is practised until fairly well done, before beginning the model apron of calico, which is then hemmed on the sides and at the bottom.

In January the aprons are laid aside while gathering is taught. The rule for gathering is copied upon paper and then practised upon cloth, with attention to the proper position of the hands. Stroking the gathers follows, and the new work is then applied to the model apron. The gathers are stitched to the belt and the apron carefully finished.

Model pillowcases are given to those who have time to make them, which gives a little practice in overcasting.

Those who finish the year's work take home all the practice work of the two years.

During the first term in the sixth grade those who completed the fifth grade work are taught to make buttonholes, while the others finish their model aprons. After vacation all begin together upon darning on canvas. This being finished, they learn to run a thin place in stocking material, and then to darn a hole. When the darning is finished, buttonholes are taken up again, and then matched patching. Those who have time for extra work practise feather stitching.

### EVENING SCHOOLS

The following account of the evening schools is given by Mr. Sanford B. Hubbard the agent of the school committee, who has the general supervision of these schools:—

There are eight evening schools,—two drawing schools, one high school, one industrial school, and four elementary schools. In accordance with the Rules of the School Board, there are two terms of the evening schools. The first term begins on the second Monday of October, and continues every Monday, Wednesday, and Friday evening until the end of the week before Christmas. The second term begins on the first Monday, Wednesday, or Friday, evening after the opening of the day schools in January, and continues thirty-five evenings. The sessions begin at half past seven o'clock and continue two hours. No session is held on the evening of a holiday, or during the vacations of the day schools.

The evening drawing schools are under the supervision of the director of drawing in the day schools. There are two of these schools, one for instruction in mechanical drawing, which occupies three rooms in the Washington building, and one for instruction in free-hand drawing, which occupies one room in the English High School building. In the Mechanical School two courses are provided,—a three years' course in

machine drawing, and a three years' course in architectural drawing. In the Free-hand School provision is made for a three years' course in free-hand drawing. Diplomas are given to graduates of either course.

The Evening High School is held in the English High School building, and offers a three years' course of instruction in the following subjects: Arithmetic, bookkeeping, algebra, geometry, stenography, English composition, English literature, civics, history, Latin, French, and German. Diplomas are granted to graduates of the three years' course.

The Evening Industrial School is held in the Rindge Manual Training School building and offers courses in machine shop work, wood-turning, pattern-making, and forging.

The evening elementary schools occupy rooms in four of the grammar school buildings, the Putnam, Roberts, Shepard, and Webster. Reading, writing, arithmetic, geography, language, history, and bookkeeping are taught in these schools in classes, so far as classification is possible, but a large part of the work is individual. No definite course is arranged, but an opportunity is offered to pupils to prepare to enter the Evening High School, and certificates are given to those who are qualified to begin work in that school. In addition to the subjects given above, classes in civil service, sewing, dressmaking, millinery, wood-working, and mechanical drawing are formed when a sufficient number express an intention to take any one of these courses.

The following table shows the attendance at the evening schools for the year 1906-1907: —

	Number Registered	Average Attendance	Average No. of Teachers*	Average No. of Pupils to a Teacher	Number of Graduates
Mechanical Drawing....	126	53	5	11	12
Free-hand Drawing.....	67	31	2	15	9
High School.....	375	173	10	17	17
Industrial School.....	92	51	3	17	..
Putnam School.....	821	296	23	13	27
Roberts School.....	684	273	20	13	36
Shepard School.....	245	118	9	13	16
Webster School.....	242	102	7	15	16
<b>Total.....</b>	<b>2,652</b>	<b>1,097</b>	<b>79</b>	<b>14</b>	<b>133</b>

\* The principals and curators are not included in these averages.

The following table shows the cost of the evening schools for the year 1906-1907:—

	Cost of Instruction	Net Cost of Text-books and Supplies	Cost of Light, Fuel, and Janitors	Total Cost	Cost per Pupil
Mechanical Drawing ....	\$889 00	\$27 74	\$219 75	\$1,136 49	\$21 44
Free-hand Drawing.....	385 00	59 20	62 89	507 09	16 36
High School .....	1,380 00	159 76	691 86	2,231 62	12 90
Industrial School.....	831 00	13	489 75	1,320 88	25 90
Putnam School.....	2,028 00	51 38	702 00	2,781 38	9 40
Roberts School.....	1,854 50	72 15	801 83	2,728 48	9 91
Shepard School.....	908 50	12 53	248 09	1,169 12	9 91
Webster School.....	796 00	52 76	310 00	1,158 76	11 36
Total.....	\$9,072 00	\$435 65	\$3,526 17	\$13,033 82	\$11 88

During the year 1906-1907, the eight evening schools occupied fifty classrooms and required the services of six principals and seventy-nine assistant teachers. The Industrial School was under the supervision of the head master of the Rindge Manual Training School and the drawing schools were under the supervision of the director of drawing for the day schools.

The registration for the sixty-five evenings was one thousand six hundred one males, and one thousand fifty-one females, an increase of one hundred eighty-three males and a decrease of sixty-three females,—a net increase of one hundred twenty. The average attendance of one thousand ninety-seven was a decrease of seven from that of last year.

Twenty-one graduated from the three years' course in the drawing schools and seventeen from the high school. Ninety-five graduated from the elementary schools prepared to enter the high school in the fall. For some reason the Mechanical Drawing School has not had as large classes as it had before the school was moved to the Washington building. The Industrial School did its second year's work with nearly double the registration of the preceding year. The classes in blacksmithing, machine shop practice, wood-turning, and pattern-making maintained their interest through the two terms. Much work, which would do credit to workmen of more experience, was on exhibition at the end of the term. Two grinding machines were made which will be installed as needed additions to the equipment of the day school. The value of these machines will meet a large share of the cost of the school.

Excellent work was done in the elementary schools, and illiterate foreigners are coming to them in great numbers. The classes in dress-making and millinery were largely attended and the interest was sus-

tained through both terms. Many persons have gone from these classes not only better dressed, but more self-reliant and self-respecting, because of the knowledge and skill they have acquired.

Since October, 1907, the industrial departments of the evening schools have been conducted under the supervision of the State Commission on, Industrial Education. This includes the two drawing schools, the Industrial School, and the dressmaking and millinery classes in the Putnam, Roberts, Shepard, and Webster Schools.

To this date all of the evening schools, except the Mechanical Drawing, have been larger than on any previous year and the demand of the public for this sort of instruction, especially instruction in the industrial arts, seems to be increasing.

### VACATION SCHOOLS

The vacation schools opened on Monday, July 8, and continued for five weeks in five schools buildings, the English High, Putnam, Roberts, Shepard, and Webster. There were two sessions of two hours each for five days in the week, one class attending the first session and another attending the second. Cards of admission were given to twelve hundred eighty pupils who applied before the opening of the term, and after the first day all pupils from grammar grades who presented themselves at the schools were admitted. The schools required the services of twenty-nine teachers.

The older pupils were given a choice between a course in sloyd and drawing, one hour a day each, and a course of two hours a day in either basketry, cooking, or sewing.

The younger pupils were given instruction in drawing, water-color painting, reading, writing, and other profitable subjects. Trips to Agassiz Museum and walks helped to make the schools interesting to these pupils.

The boys who take sloyd are obliged to have drawing one hour and sloyd one hour as the equipment for sloyd is not sufficient for the number of boys who wish to have the manual work. If more benches could be provided so that each boy could have two hours of sloyd and the drawing be omitted, the boys would remain longer in the schools as most of them do not like the drawing. The only increase in expense would be for another outfit for teaching sloyd. The number of teachers would not need to be increased, as a teacher of sloyd would take the place of a teacher of drawing. Of the three hundred sixty-three boys who applied for sloyd, two hundred eighty-six were registered and the average attendance was one hundred seventy-two.



The following table shows the number registered in each subject with the average attendance:—

	Number Registered	Average Attendance
Academic.....	480	288
Basketry.....	110	65
Cooking.....	80	44
Sewing.....	342	233
Sloyd and Drawing.....	286	172
Total.....	1,298	802

The cost of the schools was \$1,691.80 for the salaries of teachers and janitors, and \$221.59 for supplies, a total of \$1,913.39, or of \$2.38 per pupil based on the average attendance.

The following table shows the line of work in each school and the number in attendance:—

School	Subject	Number Registered	Average Attendance
English High School.....	Academic.....	109	64
	Basketry.....	110	65
	Cooking.....	80	44
	Sewing.....	57	34
	Sloyd and Drawing.....	122	73
	Total.....	478	280
Putnam School.....	Academic.....	87	55
	Sewing.....	76	58
	Sloyd and Drawing.....	72	52
	Total.....	235	165
Roberts School.....	Academic.....	142	73
	Sewing.....	75	38
	Sloyd and Drawing.....	92	47
Shepard School.....	Academic.....	56	36
	Sewing.....	85	61
Webster School.....	Academic.....	86	60
	Sewing.....	49	42
Total.....		1,298	802

#### SUMMER PLAYGROUNDS IN SCHOOL YARDS.

Mrs. Helen L. Brooks, the secretary of the committee in charge of the summer playgrounds, has furnished the following at the request of the superintendent:

The committee carried on nine playgrounds for a term of eight weeks during the summer of 1907. These playgrounds were in the yards of the Gore, Lassell, Parker, Riverside, Tarbell, and Taylor schools, at the site of the old Sargent building, and in Broadway Park and Rindge Field. The one at the Sargent yard was for boys only and it made an excellent playground for the boys in that locality.

This was the second year of the playgrounds in the school yards. A superintendent had oversight of all the yards, and a competent teacher is placed in each one. There was also an assistant who went from yard to yard and helped as needed. At the end of the summer full written reports by Miss Ida Brooks, the superintendent, and by the teachers, were given to the committee. The attendance was large except in Old Home week when outside attractions drew the children away. The good attendance and the very successful work done was owing to the presence of good teachers and to the efforts of the superintendent to get in touch with the people in the different neighborhoods. Many children said that their mothers would not let them come unless there was a teacher in charge of the grounds.

On the opening day, July 8, the children flocked to the playgrounds in large numbers. In one yard some large boys came who had to be turned away. In about an hour a third of them returned with babies waiting to be allowed "to mind baby in the sand." The second week the teacher was able to admit these boys.

In every yard, excepting the boys' yard, the city placed sand boxes. These were filled with little ones all the time except in one or two cases where conditions were not favorable. One of the teachers said - "It was great sight to see our future contractors building their bridges, tunnels, and castles."

In the Sargent school yard, where the boys were older, the teacher kept them busy in the morning with active games. Every afternoon he took them to Cambridge Field for baseball and track running. He was much pleased with the sportsmanlike spirit which he was able to develop in the boys. This was shown by their interest in the games even when they were not winning and by their respect for his decisions even when contests were close. "These boys," he said, "only need to have their activities properly guided."

In the other yards, games were played with bean-bags, quoits, and tag-toss, also many circle games. While games were going on in one part of the yard, in another part there were busy groups, sewing, knitting, crocheting, or pricking and working sewing cards in gay colors, which was always interesting to the children. Many little dolls were dressed, and pins were knit on spools and scrap books were made. The boys, too, even the older ones, were eager to work on sewing cards and to knit the pins. In the Parker School, where the yard was very unattractive, the teacher sometimes took the children into the school building. She appointed some of the older girls as teachers and little groups were formed whom they taught sewing and knitting. They learned new songs, they played house and had doll parties, and they gave shows to which the ad-

mittance fee was a needle or pins and a clean face and hands. Shows were successfully given in other playgrounds. They consisted mostly in singing and in speaking pieces. Good story books and colored picture books were much enjoyed.

In almost every playground children were organized into cleaning brigades, so that the yards were kept free from litter and the sand was cared for. The teachers were wise in making the children feel that it was a duty to be helpful, and often the most satisfactory reward for faithfulness and neatness was the privilege of being allowed to do something for the teacher.

A great gain over last year was seen in the interest shown by parents and neighbors in the school yard playgrounds. No neighbor, so far as is known, complained of the noise and some commended the playgrounds. One teacher writes in her report: "Many mothers visited me and asked my advice about their children, seeming truly interested in every attempt to keep them well employed." This in itself shows that the work was not in vain, as it reached the home and was helpful there. Another teacher writes: "I have been on very friendly terms with the mothers. Many of them came nearly every afternoon. I feel that those with whom I have talked thoroughly appreciate what has been done for the physical and moral influence of their children." One mother said: "I haven't had nearly as much complaint about my children since this yard opened, and I have decided it was just what they needed to keep them out of mischief."

Now that the novelty has worked off, the crowd of rough boys that used to gather on the outside to make mischief, if possible, has greatly decreased, fewer appeals being made to the police. The officers on duty were very helpful and the chief of police said of their work, "I believe in most, if not in all the yards, it was a labor of love, all believing that the children were very materially benefited as well as made happy by the efforts of the committee in charge of the summer work."

The teachers had little trouble with discipline when they could keep the children busy. They came in such numbers that it was not always easy to have material enough to keep them occupied. One teacher said, "Supplies must be furnished in liberal measure when you consider that fifty or more children are to be kept happily employed five hours a day for eight weeks." In Rindge Field there were sometimes more than two hundred children at one time. The committee feels that great praise is due to the superintendent and to the teachers. Tact on the part of the teacher and hearty play under proper supervision have often changed the unruly spirit into a helpful one.

Miss Brooks, the superintendent, pays a tribute to the vacation

ols in saying, "The playground teacher aims to promote her children in the vacation schools. The vacation school children often join with others and their influence is of value to all."

The expense for carrying on the nine playgrounds was \$981.81.

### THE PUBLIC LIBRARY AND THE SCHOOLS

The English High School has a library of about three thousand volumes. The Latin School has only about one-third of this number. Relatively few books of a miscellaneous character have been added to the libraries for several years, the public library meeting the demand for such books. The need of the schools is for books of reference and for books of books for class study. The library at the Latin School will in the future receive accessions from the income of the Hopkins Classical Fund.

The grammar schools, with the exception of the Morse and Webster, are not supplied with books for general reading. These are obtained from the public library, and during the year, twenty-one thousand four hundred six books have been delivered to the schools.

The following is from the report of the librarian of the Cambridge Public Library :—

A plan of co-operation with the schools of the city, which was begun last year with such satisfactory results, was repeated this year. In accordance with this plan, visits to the library of the pupils of all the high grades of the public and parochial schools were made, for special instruction in the use of the card catalogue and of reference works, and an inspection of all parts of the library itself. The visits lasted from April to May 17, twenty-two in all, including twelve public and four parochial schools, some grades coming in two divisions, and one grade in each. The extremes of attendance were sixty-five and nineteen, the average being about forty. Each class was accompanied by one or two teachers. In the absence of the children's librarian, Miss Alice O'Brien, on account of illness, the instruction to each class was first given by the librarian, and the place of meeting was, as last year, the local history room. In showing the pupils about the building the librarian was assisted by Miss Edna L. Brooks, the reference librarian, and by Miss Catherine A. O'Donnell, and the connection of the library with the schools and the local stations was explained by Miss Charlotte E. Stewart, in her report at the end of the stack. The same opportunity of visiting the library was given to the other private schools of the city, of which one included itself, the Berkeley School for Girls. The obvious success of this plan should lead to its recognition as a permanent feature of the co-operation between the library and the schools; and its extension to include

more special instruction in the use of the library, both by visits of other grades than the ninth, and by visits of the librarian or the children's librarian to the schools for short talks to small groups, should be brought about as fast as possible.

In order to arouse still further the interest of the school children in the celebration of the Longfellow Centenary, the librarian visited the grammar schools of the city, public and parochial, during the week preceding the celebration, and gave, where convenient, brief talks to the pupils of the ninth grades.

Co-operation with the high schools has been thus far confined to the Rindge Manual Training School. At the request of the English department of that school, a special list of "Fifty standard books for older boys" was issued for the December Bulletin and in a separate edition of five hundred copies for school use. Condensed from a longer list of one hundred books, prepared chiefly by Mr. William O. Hubbard, instructor in the same department, it was designed to supplement a similar list of "Fifty recent books for older boys," which appeared in the Bulletin of the September before, and also to continue the endeavor on the part of the library to supply good reading for boys who are passing from the juvenile to the adult age. At the further request of Mr. Hubbard, the library has established in the school a deposit collection of one hundred books for use by the pupils of his classes in English and under his special supervision.

During the fall the special list of "Foundry practice and pattern-making," which was prepared two years ago by Mr. Richard H. Gallagher, has been revised to date, and copies in duplicate have been distributed to all the pupils of the school who wish to use it. In order to show the application of this special list to the methods of finding material in the library in any subject, especially when all the books bearing directly on the subject happened to be out, the librarian gave brief talks before each of the five divisions of Mr. Gallagher's and also Mr. James G. Telfer's classes. This new plan of co-operation has received the cordial approval of the principal of the school, Mr. John W. Wood, Jr., as well as of the superintendent of schools. This revised list is to be followed by other similar lists, and the same plan of instruction may be repeated with the lists of object lessons immediately in hand.

#### TRUANT OFFICERS

The city is divided into four districts and to each of these districts a truant officer is assigned. Among their duties are the following: To visit each school at least once a day, unless otherwise directed by the agent; to prevent children from loitering about the school premises; to

tify the teachers of all cases of contagious and infectious diseases reported by the board of health; to attend the evening schools when so directed by the agent of the Board; to assist in the preservation of order, and to visit places of business where children are employed, to see that none are employed unlawfully. They make all complaints at the district court for truancy, absenteeism, or school offences, attend the trials as witnesses, and take boys to the Middlesex County Truant School when they are sentenced.

By the Rules of the School Board the work of the truant officers is done under the supervision of the committee on schoolhouses; and under the direction of this committee, it is the duty of the agent of the Board to consider all cases of truancy, of persistent violation of the rules of the school, of juvenile vagrancy, of unlawful detention from school, of neglect of parents; and of any failure on the part of pupils or parents to comply with the Rules of the School Board or the public statutes relating to school attendance. It is also the duty of the agent to direct the officers to make complaints; to certify to the records in these cases when presented before the district court; and to exercise such supervision of the boys who are sent by the court from Cambridge to the truant school as may be allowed under the statutes.

The following is from the report of the committee on schoolhouses:—

The truant officers, Messrs. Cabot, Carmichael, Porter, and Riley, have continued the faithful and conscientious service of the past. They have investigated and reported on twelve thousand and twenty cases of offences; made thirty-three complaints of truants; visited two hundred forty-four factories or mercantile establishments, and supervised the taking of the school census.

The census, which gives the number of children in the city between five and fifteen years of age, shows an increase over last year of one hundred twenty-six boys and fifty-five girls, a total of one hundred eighty-one. The following is a summary of the school census for the year 1907:—

Number of children in the city between five and fifteen, boys 8,024;	
girls, 8,086 . . . . .	16,110
Number in public schools between five and fifteen . . . . .	12,493
Number in private schools between five and fifteen . . . . .	3,283
Number not attending school between five and seven . . . . .	132
Number not attending school between seven and fourteen . . . . .	40
Number not attending school between fourteen and fifteen . . . . .	162
Whole number not attending school between five and fifteen . . . . .	334
Number in the city between five and six . . . . .	1,640
Number in the city between seven and fourteen, boys, 5,721; girls, 5,779 . . . . .	11,500

At the beginning of the year there were forty-one boys at the truant school from Cambridge; nineteen have been discharged, and twenty-four sentenced to the school, so that now there are forty-six boys at the school. The cost of the transportation and care of these boys was \$2,654.71.

The statistics of the private schools obtained by one of the officers show that there are ten private schools in the city, having three hundred fifty-eight pupils and receiving \$45,430 tuition money. The five parochial schools contain three thousand eight hundred sixty-nine pupils, a total of four thousand two hundred twenty-seven pupils attending other than the public schools.

### CONTAGIOUS DISEASES

The following act relative to school physicians and to testing the sight and hearing of pupils in the public schools, was passed by the legislature in 1906 :—

SECTION 1. The school committee of every city and town in the Commonwealth shall appoint one or more school physicians, shall assign one to each public school within its city or town, and shall provide them with all proper facilities for the performance of their duties as prescribed in this act; *provided, however*, that in cities wherein the board of health is already maintaining or shall hereafter maintain substantially such medical inspection as this act requires, the board of health shall appoint and assign the school physician.

SECT. 2. Every school physician shall make a prompt examination and diagnosis of all children referred to him as hereinafter provided, and such further examination of teachers, janitors, and school buildings as in his opinion the protection of the health of the pupils may require.

SECT. 3. The school committee shall cause to be referred to a school physician for examination and diagnosis every child returning to school without a certificate from the board of health after absence on account of illness or from unknown cause; and every child in the schools under its jurisdiction who shows signs of being in ill health or of suffering from infectious or contagious disease, unless he is at once excluded from school by the teacher; except that in the case of schools in remote and isolated situations the school committee may make such other arrangements as may best carry out the purposes of this act.

SECT. 4. The school committee shall cause notice of the disease or defects, if any, from which any child is found to be suffering, to be sent to his parent or guardian. Whenever a child shows symptoms of small-pox, scarlet fever, measles, chickenpox, tuberculosis, diphtheria or influenza, tonsillitis, whooping cough, mumps, scabies or trachoma, he shall be sent home immediately, or as soon as safe and proper conveyance can be found, and the board of health shall at once be notified.

SECT. 5. The school committee of every city and town shall cause every child in the public schools to be separately and carefully tested and examined at least once in every school year to ascertain whether he is suffering from defective sight or hearing or from any other disability or defect tending to prevent his receiving the full benefit of his school work, or requiring a modification of the school work in order to prevent injury to the child or to secure the best educational results. The test of sight and hearing shall be made by teachers. The committee shall cause notice of any defect or disability requiring treatment to be sent to the parent or guardian of the child, and shall require a physical record of each child to be kept in such form as the state board of education shall prescribe.

SECT. 6. The state board of health shall prescribe the directions for tests of sight and hearing and the state board of education shall, after consultation with the state board of health, prescribe and furnish to school committees suitable rules of instruction, test-cards, blanks, record books and other useful appliances for carrying out the purposes of this act, and shall provide for pupils in the normal schools instruction and practice in the best methods of testing the sight and hearing of children. The state board of education may expend during the year nineteen hundred and six a sum not greater than fifteen hundred dollars, and annually thereafter a sum not greater than five hundred dollars for the purpose of supplying the material required by this act.

SECT. 7. The expense which a city or town may incur, by virtue of the authority herein vested in the school committee or board of health, as the case may be, shall not exceed the amount appropriated for that purpose in cities by the city council and in towns by a town meeting. The appropriation shall precede any expenditure or any indebtedness which may be incurred under this act, and the sum appropriated shall be deemed a sufficient appropriation in the municipality where it is made. Such appropriation need not specify to what section of the act it shall apply, and may be voted as a total appropriation to be applied in carrying out the purposes of the act.

SECT. 8. This act shall take effect on the first day of September in the year nineteen hundred and six. [*Chapter 502, Acts of 1906.*]

In accordance with Sections 5 and 6 of the above act, the rules of instruction, test-cards and blanks, furnished by the secretary of the state board of education, were sent to the schools in October and the tests of sight and hearing were made in November. In order that there might be as much uniformity as possible in the testing, the work in the smaller buildings was assigned to one teacher, and in the larger buildings to not more than two or three teachers.

Pupils in the kindergartens and in the first primary grade were not



tested. The examinations revealed some cases of defective sight that were not suspected by the teachers, and also showed the seriousness of other cases and the need of immediate attention to them.

As required by the act, parents were notified if the eyesight of pupils was found defective. Many children have been provided with glasses and immediate improvement in work and in conduct has resulted. The examinations showed that twenty-five per cent of the pupils appeared to have some defect of vision.

Four per cent of the children above the first primary grade were found defective in hearing. The parents of these children were notified, and in most cases they have taken the children to physicians for treatment.

The tests made in 1907 showed four per cent less pupils defective in eyesight and two per cent less defective in hearing than in 1906.

Since 1894 the Cambridge board of health, in accordance with a request of the school committee, has appointed a physician, whose duty it is to examine all cases of contagious diseases reported, and to direct the exclusion from the schools of all pupils whose presence will, in his opinion, be a menace to the health of others. He reports his action on every case to the secretary of the school committee. This physician issues all certificates, authorizing such children to return to school, as provided by Chapter 502, Section 1, of the Acts of 1906.

As a further precaution against contagious diseases, the board of health established, February 26, 1896, a system of medical inspection in the schools. The city was divided into six districts, in each of which a physician was appointed to visit the schools in that district. The duties of these physicians as now defined are as follows:—

1. The physician shall enter each room of the schools which are subject to his inspection during the morning of every school day.

He shall receive from the principal of the school a written statement signed by him which shall state the name and rooms of the pupils which the respective teachers desire to have examined. If there should be no pupils to be examined, he shall receive for each school day, a written statement from the principal, stating the fact. He shall examine such children as are indicated to him by the teacher as having complained of, or appear to be suffering from disease. He shall enter such rooms, and inspect such other children or parts of the building as he deems wise, examining at least one school each day; being careful always not to disturb the work of the school more than is necessary, in order to learn the condition of the school and the health of the pupils.

2. The physician is to recommend to the principal to send home immediately any child whom he may suspect of having any infectious disease.

3. The physician must not recommend the employment of any special physician or mode of treatment for the particular case, except in pediculosis and tinea, when he shall recommend the treatment by giving the pupil one of the cards provided.

4. In cases of nearsightedness or other trouble with the eyes, or deafness, or other ear trouble to which attention has been directed by the teacher, the physician is instructed to suggest that the principal recommend to the parents that the eyes or the ears of the pupils be examined.

5. The physician shall on the first of each month send to the office of the board of health the statements or cards which he has received and to which he shall add such comments as he thinks will be of value to the board of health.

The principal of each school is required to read the following at the beginning of each term in all the rooms under his charge:—

“Any teacher or pupil who visits any apartment in which a person has been sick within two weeks, or which has been exposed within that time to contagion of smallpox, varioloid, diphtheria, or scarlet fever, shall not be allowed to attend school until the expiration of two weeks after such visit.”

From December 1, 1906, to December 1, 1907, the truant officers received notice through the office of the school committee and reported to the several schools the following number of cases of contagious diseases:—

Diphtheria . . . . .	344
Scarlet Fever . . . . .	413
Measles . . . . .	61
Cerebro-spinal Meningitis . . . . .	22

#### TERMS, HOLIDAYS, AND SCHOOL HOURS

The school year is divided into three terms,—the autumn, the winter, and the spring term.

The time for beginning the autumn and spring terms, and for closing the winter and spring terms, is fixed annually at the regular meeting of the committee in February. The autumn term ends December 23. The winter term begins on the first school day after that celebrated as New Year's Day.

The holidays are Saturdays; Thanksgiving Day, with the preceding day and the day following; the twenty-second of February; the nineteenth of April; Good Friday; Memorial Day; the seventeenth of June; and in addition to these, for the high schools, Commencement Day at Harvard University.

The sessions of the high schools begin at 8.30 A. M., and end at 1.30

P. M. The sessions of the Rindge Manual Training School begin at 8.30 A. M., and end at 2 P. M. These schools have a recess of half an hour in each session.

With the exception of the Russell School, the morning sessions of the grammar and primary schools begin at 9 and end at 11.45. The afternoon sessions begin at 1.30 and end at 3.30. The grammar schools have no outdoor recess. In the primary schools the principal may, at her discretion, substitute an outdoor recess for the period devoted to physical training. The sessions at the Russell School begin at 8.30 A. M., and end at 1.30 P. M.

The sessions of the kindergartens are from 9 A. M. to 11.50 A. M.

There are two terms of the evening schools. The first term begins on the second Monday of October, and continues every Monday, Wednesday, and Friday evening, until the end of the week before Christmas. The second term begins on the first Monday, Wednesday, or Friday evening after the opening of the day schools in January, and continues thirty-five evenings. Vacations and holidays are the same as in the day schools. The sessions begin at 7.30 P. M., and continue until 9.30 P. M.

### TEACHERS

In December, there were four hundred sixty-four teachers in the public schools, including four unassigned teachers. Thirty-six have been nominated during the year; two, nominated as temporary teachers last year, have been given permanent positions; seven have been promoted to their temporary or permanent positions; twenty-three have resigned, and two have died. Four have been given leave of absence for rest or for some special reason, and four have been given leave of absence in accordance with the following Rule of the School Board:—

“Any teacher who has served in the city for ten years, may, on commendation of the superintendent and vote of the Board, have leave of absence for one year for purposes of travel or study, and may receive one-third of his salary, provided the amount in no case shall exceed five hundred dollars.”

Since the adoption of this rule in 1896, twenty-nine teachers have been given leave of absence, thirteen from the high schools, seven from the grammar schools, six from the primary schools, and three from the kindergartens.

Four teachers were put on the unassigned list in June, 1905, in accordance with the following Rules of the School Board:—

“The superintendent shall prepare and submit to the Board annually in June, a list of the teachers recommended by him for re-election.

“On this list he shall designate teachers who have taught in the Cambridge schools for twenty-five years or more and who have attained an age of sixty years, whose election he recommends to serve in an assistant, temporary, or substitute capacity, at a salary of three hundred dollars in grammar and primary schools, and of four hundred fifty dollars in the high schools.”

During the year two teachers have been made principals of the schools in which they were teaching; two have acted as principals during the absence of the regular principals; two have been promoted to the position of master's assistant, and one has been made teacher of the ninth grade.

Miss Helen A. Linehan, a teacher in the Boardman School from September, 1906, was suddenly killed on February 23, 1907, by the overturning of an electric car near her home in Amherst.

### QUALIFICATIONS OF TEACHERS

A person to be eligible to the position of teacher in a kindergarten must have had a course in a high school, a course in a kindergarten normal school, a year's experience in teaching either in a kindergarten or

a primary school, and must be able to play the piano; to be eligible to a position in a primary or grammar school, a teacher must have had a course in a high school, a course in a normal school, and a year's experience in teaching; to be eligible to a position in a high school, except in the manual training department of the manual training school, a teacher must be a college graduate. Equivalent preparation may be accepted. Preparation for the work of teaching as shown by years of study, and experience as shown by years of teaching, may be considered in fixing the salaries of teachers at the time of their nomination.

Two months after a teacher has been nominated to a position in a kindergarten or any school below the position of principal or master in a high or a grammar school, two experienced teachers who are not connected with the school in which the nominee is to serve, are designated by the superintendent to examine the teachers so nominated, while at work, and they report in writing to the superintendent; these reports, together with the testimonials and other papers relating to the qualifications and character of the teacher so examined and of all other nominees, are kept on file in the office of the superintendent and are open to inspection by members of the Board only.

The committee on teachers considers all nominations made by the superintendent. This committee confers with the superintendent, considers the reports of the examiners designated by him, makes further inquiry at discretion and reports to the Board.

Any nomination referred to the committee on teachers, unless confirmed, lapses at the expiration of six months, not counting the summer vacation. A teacher who has failed of confirmation is not to be nominated to a similar position within two years, except on the approval of the committee on teachers.

This committee inquires and reports to the Board in executive session as to the success of any teacher in the employment of the city when so requested by any member of the Board or by the superintendent, and no teacher under such inquiry receives the regular increase of salary except on the recommendation of this committee.

Under the direction of the superintendent, teachers may visit other schools to observe the discipline and instruction. They may be required to attend teachers' meetings or courses of instruction in methods of teaching for one hour a week. Such meetings may be held on Saturday mornings during term time or at such other time, not in school hours, as the superintendent may direct. Meetings in addition to those indicated above may be held by the superintendent or may be called by him, on request of directors in special subjects.

**MASSACHUSETTS ANTI-CIGARETTE LEAGUE**

The work that is being done in the schools of Cambridge in conjunction with the Massachusetts Anti-Cigarette League should receive the commendation and the support of all who would protect our boys from contracting a habit that unfits them for school duties and that makes boys mean instead of manly.

The leagues at the Kelley, Putnam, and Wellington schools have enrolled most of the boys in those schools. Many of the members have taken such interest in the purpose for which the league exists that they have persuaded others to join, and by their influence and example have prevented those who have joined from falling out. Other leagues are to be formed.

The law that prohibits selling or giving cigarettes to children is dear. It is expressed in a few words and is as follows:—

**ACTS OF 1901, CHAPTER 373.****AN ACT TO PROHIBIT THE SALE OR GIFT OF CIGARETTES TO ANY PERSON UNDER THE AGE OF EIGHTEEN YEARS.**

**SECTION 1.** No person shall sell a cigarette to any person under the age of eighteen years.

**SECT. 2.** No person other than the minor's parent or guardian shall give a cigarette to any minor under the age of eighteen years.

**SECT. 3.** Any person violating any provision of this act shall be punished by fine not exceeding fifty dollars.

**SECT. 4.** All acts and parts of acts inconsistent herewith are hereby repealed.

This law should be rigidly enforced everywhere. The school strives to hearten the boys for life's work and for life's trials. The person who sells cigarettes to school boys is tearing down what the school is building.

The city spends half a million dollars a year for the improvement of its youth.

The citizens cannot afford to allow the teachings of the school to be nullified by the acts of those who sell or give cigarettes to our boys in defiance of the law.

## SUBSTITUTES.

The pay of a substitute teacher in a high school, who is employed temporarily, is \$2.50 a day; if employed one month or more, it is at the rate of \$500, \$600, or \$700 a year, the sum to be determined by the superintendent, who shall consider the experience of the teacher and the position to be filled, in fixing the sum.

The pay of a teacher who is employed temporarily as a substitute in a grammar school, a primary school, or a kindergarten, is \$1.00 a session; if employed one month or more, it is at the rate of \$450 a year.

## SPECIAL TEACHERS AND OFFICERS.

Director of Music . . . . .	\$2,000 00
Assistant Teacher in Music . . . . .	800 00
Director of Drawing . . . . .	2,000 00
Assistant Teacher in Drawing . . . . .	800 00
Director of Nature Study (three-fifths time) . . . . .	1,000 00
Director of Physical Training . . . . .	950 00
Instructor in Physical Training in the High Schools . . . . .	950 00
Director of Sewing . . . . .	700 00
Teachers of Sewing . . . . .	650 00
Superintendent of Schools . . . . .	3,500 00
Supervisor of Primary Schools . . . . .	1,350 00
Agent of the School Committee . . . . .	2,350 00
Truant Officers (four are employed) . . . . .	1,000 00
Secretary of the School Committee . . . . .	400 00
Page of the School Committee . . . . .	25 00
Secretary and Librarian of the Latin School . . . . .	650 00
Secretary and Librarian of the English High School . . . . .	650 00
Secretary and Librarian of the Rindge Manual Training School . . . . .	650 00

## EVENING SCHOOLS.

Principal of High School	per evening . . . . .	\$4 00
Principal of Elementary Schools	" " . . . . .	3 00
Teachers in Drawing Schools	" " . . . . .	3 00
Teachers in High School	" " . . . . .	2 00
Teachers in Elementary Schools	" " . . . . .	1 50

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The citizens cannot afford to allow the teachings of the school to be nullified by the acts of those who sell or give cigarettes to our boys in defiance of the law.



### THE DEMAND FOR VOCATIONAL SCHOOLS

The Rindge Manual Training School enrolls a large number of boys who would not continue their studies in a secondary school if the courses offered were entirely academic. These boys are being fitted for larger usefulness in life by their training at this school. In the Rindge Manual Training School, however, the emphasis is clearly on the academic side, and the manual training, being of a general character, is not in the nature of preparation for particular vocations. The school does, however, give its students such a drill and such a right attitude toward work that young men who have had this training have little difficulty in securing desirable employment at good wages.

In the first, third, and fourth years of the general and college courses in the Rindge Manual Training School, five periods a week out of the thirty are given to shop work, and in the second year ten periods out of the thirty are given to this work. In the commercial course five periods out of thirty are given to shop work in each of the four years. Thus it will be seen that by far the greater part of the work is on the academic side.

The popularity of the Rindge Manual Training School, which by its instruction develops manual along with mental power, clearly proves that there is a demand for schools where the study of processes and of the uses of tools is a part of the work.

Schools should be established for boys who have a grammar school education or its equivalent, in which the instruction from the start shall have definite bearing upon vocation and in which the industrial training shall have quite as much time allotted to it as is given to academic studies.

The general training given by secondary schools does not appeal to parents whose boys must shortly be fitted to earn their livelihood. There is a demand for schools in which the training shall be particular and shall have definite reference to special trades and employments. Such schools if under State control could be so located as to accommodate the young men from neighboring towns and cities.

The Massachusetts Commission on Industrial Education is arranging for the establishment of schools of this character. Such schools when established will offer opportunities which will be eagerly sought by large numbers of grammar school graduates who are not attracted by the courses of study now offered in the high schools.

### RUEL H. FLETCHER, MASTER OF THE THORNDIKE GRAMMAR SCHOOL

Mr. Ruel H. Fletcher, master of the Thorndike Grammar School, stated his fiftieth class on the twentieth of June, 1907. The occasion made memorable by the tributes paid to Mr. Fletcher. After the prizes had been awarded, Edward A. Counihan, Jr., Esq., the sub-committee in charge of the Thorndike School, who is himself one of Mr. Fletcher's graduates, took charge of the exercises. Mr. Counihan spoke of his own experience as a pupil in the Thorndike School, and his tribute to Mr. Fletcher, coming as it did from one who, having been a pupil in the school, is now the committee in charge, was especially appropriate. Mr. Counihan then read the resolutions in honor of Mr. Fletcher that he prepared for the school committee. On behalf of the graduates he presented to Mr. Fletcher a purse containing a sum of money, and also dollars in gold from the pupils of the school. Other addresses were made by Hon. Walter C. Wardwell, Mayor of Cambridge, Rev. John F. O'Brien, Rev. Lawrence J. Glynn, Col. John D. Billings, representing the naval masters, and William C. Bates, superintendent of schools. Mr. Fletcher's response was in grateful appreciation of the support he had for half a century from citizens, from officials, from associates, and from pupils.

The following preamble and resolutions, submitted by Mr. Counihan and adopted by a unanimous rising vote of the committee at the meeting of June 19, 1907, show the honor in which Mr. Fletcher is held in the city for the service he has served so long.

The occurrence of any important event which rounds to completion a century of earnest and productive service for the public welfare deserves more than ordinary recognition.

Such an event marks the exercises of the Thorndike Grammar School, and we therefore should not permit the occasion to pass unnoticed. On this twentieth of June, 1907, the honored master of this school presents his fiftieth graduating class from this particular school, the members of which have received their diplomas from the hands of His Honor the Mayor.

Ruel H. Fletcher, the principal of the Thorndike Grammar School, in our city of Cambridge, through its school committee, desires now to honor, was appointed in the year 1857 as master in the identical school in which he has ever since been located. He had previously been a teacher in the town of Quincy, Mass., from which place he was called to this city. The history of his tireless service as an educator in our city, though

### LONGFELLOW DAY

On the morning of Wednesday, the twenty-seventh of February, the schools celebrated the One Hundredth Anniversary of the birth of Henry Wadsworth Longfellow. There was no session in the afternoon that pupils of the upper grades might attend "The Children's F

Every room in every school in the city had such exercises as suited to the age of the children. The programs of all the schools sent to the office of the superintendent and are to be preserved as a valued record of one of the special occasions in which the schools had part.

Two of the programs will show the character of the celebration in the schools. The first is the program that was followed at one of the mixed schools when all the children were assembled in the hall:—

- |                 |   |
|-----------------|---|
| 1. READING.     | Mr. Longfellow's letter to the schools of Cincinnati when asked to celebrate his birthday with  |
| 2. READING.     | An Autograph Letter. This was written to a bridge teacher by Mr. Longfellow. It was read to a teacher in this school and was read by her with comments. |
| 3. RECITATION.  | Children  |
| 4. RECITATION.  | The Children's Hour   |
| 5. RECITATION.  | The Psalm of Life   |
| 6. SINGING.     | The Bridge  |
| 7. RECITATION.  | The Arrow and the Song  |
| 8. DECLAMATION. | Excelsior   |
| 9. RECITATION.  | To the River Charles  |
| 10. SOLO.       | Sing me to Sleep  |
| 11. RECITATION. | The Rainy Day   |
| 12. RECITATION. | The Village Blacksmith  |
| 13. RECITATION. | Selections from Hiawatha  |
| 14. SINGING.    | The Ship of State   |
| 15. RECITATION. | The Sermon of St. Francis   |
| 16. SINGING.    | Stars of the Summer Night   |
| 17. RECITATION. | The Old Clock on the Stairs   |

The following is the order of exercises in a primary school:—

- |                |                     |
|----------------|---------------------|
| 1. SONG.       | The Cambridge Hymn  |
| 2. RECITATION. | Hiawatha's Sailing  |
| 3. RECITATION. | The Children's Hour |
| 4. SONG.       | Owlet Song          |

- 5. READING. The Wreck of the Hesperus
- 5. RECITATION. The Village Blacksmith
- 7. SONG. Lullaby.
- 8. RECITATION. Short Sketch of Mr. Longfellow's Life
- 8. READING. Children
- 8. EXERCISE. Mounting of Pictures of Mr. Longfellow on Pupils' Booklets
- 8. SINGING. America.
- 8. EXERCISE. Salute to the Flag

At "The Children's Hour" in the afternoon about thirteen hundred pupils from the upper grades of the public and private schools listened to an address by Bishop Lawrence who presided, and to readings by Mr. Charles T. Copeland. The selections read by Mr. Copeland were a part of "Hiawatha" and all of "Paul Revere's Ride." The following songs were sung by Mrs. Laura Comstock Littlefield: "The Children's Hour," "Stars of the Summer Night," "The Arrow and the Song," "The Old Clock on the Stairs," "Beware," and "A Serenade." Mr. H. Lambert Murphy, the leader of the Harvard Glee Club, sang "Hiawatha's Death Song" and "My Bark Canoe." At the close of the exercises the children sang "Excelsior."

At the celebration at Sanders Theatre in the evening, a chorus of pupils from the high schools, under the leadership of Mr. Frederick E. Chapman, the director of music in the Cambridge schools, rendered "The Village Blacksmith."

### CONCERNING SOME CHANGES

Special efforts are being made to prevent pupils from leaving school before graduation unless sickness or family necessity compels them to do so. Two meetings were held in September, one of the teachers of the high schools, the other of the teachers of the grammar schools, at which the importance of keeping pupils in the schools until the end of the course was discussed. Emphasis was laid upon the fact that the pupil who is poor in his work, who is slow, who is discouraged, or who is poor in conduct, especially needs the heartening, the help, the leading into better ways of life that the school must give if it is to accomplish the work for which it exists. For there is no weaker thing that the school can do than to advise those pupils whose natural development is slow to withdraw from school and so go out into life handicapped by lack of mental development. It is true, too, that the pupil whose conduct is poor is the one who especially needs the saving help of the school to keep him from falling into a worse condition.

Knowing that many pupils would leave the high schools and the grammar schools during the year, notwithstanding efforts to retain them, the teachers and superintendent agreed to study, so far as possible, the case of every pupil who should leave the schools after the adjustments of organization had been made for the year.

On the fourteenth of October lists of the pupils in each grade in the high schools and in each grammar room were sent to the office of the superintendent of schools, and after that date whenever a pupil left one of the high schools or grammar schools the case was reported to the superintendent, care being taken to learn and report upon the reason why the pupil left school. In the ten weeks from the middle of October to the Christmas vacation, sixty-three pupils withdrew from the high schools. Forty of these were in the tenth grade, ten in the eleventh, eight in the twelfth, three in the thirteenth, and two in the fourteenth grade.

Sixteen left to go to work, and eight to help at home. Thirteen withdrew on account of poor health, and eleven because of failure to keep up in their studies. Six moved out of the city; five went to commercial schools; two left because of poor conduct; one withdrew to be married, and one was transferred to another high school in the city.

In these ten weeks three hundred fourteen children in the grammar schools left the place in which they were when the special report of enrollment was made. Of these, seventy-four were in the fourth grade, fifty-six in the fifth, sixty-nine in the sixth, sixty in the seventh, thirty-three in the eighth, and twenty-two in the ninth grade.

The ten weeks under consideration are a fourth of the school year. If the changes are at the same rate for the whole of the year, twelve hundred pupils, or about one-sixth of the whole number enrolled in the grammar schools either leave the Cambridge schools or are changed to other schools in the city.

It is interesting to know more about the children who are discharged from the grammar schools.

Of the three hundred fourteen cases reported, eighty-eight were transferred to other schools in Cambridge either because the families of which they were members had moved, or, in a few instances, because they were found to be attending schools in districts to which they did not belong. Sixty-eight went to Boston, twenty-two to Somerville, and twelve to other towns and cities in the immediate vicinity of Boston. Thirty-eight went to other towns and cities in Massachusetts outside of greater Boston and sixteen went out of the State. Thirty-nine went to work in mercantile or manufacturing establishments, twenty-one left to help at home, eight went to parochial or private schools, two went to Europe, and one died. Included in the three hundred fourteen were twenty-nine who had failed to do the work of the grade to which they had been promoted on trial and so were returned to the next lower grade.

In the ten weeks, seventy-four pupils went from the grammar schools in Cambridge to the grammar schools of greater Boston, and about an equal number came from those cities and towns to Cambridge. This indicates that about three hundred go from Cambridge to greater Boston, and about three hundred come to Cambridge from greater Boston in a school year.

These pupils whether they go from us or come to us call for sympathy and for special care. To the other members of the family it may make little difference if they live in one city this month and in another city next month, but for the children it is a serious matter. It is often difficult for pupils to adjust themselves to the educational arrangements that differ so essentially in the cities and towns that make up the metropolitan district. A pupil who comes from the eighth grade, for instance, in another city may find himself placed in the seventh grade in Cambridge, while one who goes from the eighth grade in Cambridge to the very city from which the other pupil came may find his place in the seventh grade, too. All this may happen and does happen because the courses of study are so differently arranged.

The difficulty of placing pupils who come from Boston to Cambridge is still further increased by the fact that the regular course in the elementary schools of Boston is now eight years, while in Cambridge it is nine years.

**CAMBRIDGE TEACHERS' CLUB**

The officers of the Cambridge Teachers' Club for the school year 1907-1908 are as follows :—

President, WILLIAM F. BRADBURY

Vice-President, MARY I. VINTON

Treasurer, H. WARREN FOSS

Secretary, MARIA L. BALDWIN

Executive Committee, MARY E. TOWLE,

MARY A. RADY, CAROLINE A. LEIGHTON

The club helps both the professional and the social life of the teachers.

By lectures, by musical entertainments, and by social meetings it brings into more cordial relations those who are associated in school work.

The club took fine notice of the day on which Ex-Superintendent Cogswell was eighty years of age. It was agreed that all the members of the teaching corps should call at the office at the close of the afternoon session to meet Mr. Cogswell in the place where so much of his work had been done. Mr. Cogswell was not told that a celebration of his birthday had been planned, and he was asked to go to the office on a matter of business.

There, for nearly two hours in the place that had been his work room, and which had been decorated with flowers and palms, Mr. Cogswell was greeted by city officials, by teachers, and by friends.

The occasion was another expression of affection and respect for one who, having voluntarily laid aside the severe burdens of school administration, yet continues to help and hearten us by his interest in boys and girls and by his good will toward all who are carrying forward his work.

Respectfully submitted,

WILLIAM C. BATES.

*Superintendent of Public Schools.*

IN SCHOOL COMMITTEE, February 20, 1908.

*Ordered*, That the report of the superintendent as read and outlined by him be accepted and adopted as the annual report of the school committee for 1907, and that the secretary be authorized to append the names of the school committee thereto.

SANFORD B. HUBBARD.

*Secretary.*

**Members of the School Committee for 1907**

WALTER C. WARDWELL, *Chairman ex officio.*

WARREN P. ADAMS	SHERMAN R. LANCASTER
GEORGE W. BICKNELL	JAMES A. LEW
LAWRENCE G. BROOKS	WILLIAM TAGGARD PIPER
CAROLYN P. CHASE	J. HENRY RUSSELL
EDWIN L. CHENEY	FRANK E. SANDS
EDWARD A. COUNIHAN, JR.	JOSEPH E. SHARKEY
ADA R. KINSMAN	JOHN E. SOMERS
ROBERT WALKER	



## BOOKS OF INTEREST TO TEACHERS

The following list of books has been prepared by the librarian of the Cambridge Public Library, Mr. Clarence W. Ayer, for use by the teachers of the public schools. It is arranged to bring out special topics of teaching, and to include some of the representative aids to teachers in all subjects. Teachers are welcome to consult the books on the shelves in the stack.

## EDUCATIONAL, GENERAL

Allen. Home, school, and vacation. 1907 . . . . .	370.4-A15
Ascham. The scholemaster. 1884 . . . . .	370-A823
Baker. Education and life. 1900 . . . . .	370.4-B17
Boone. Science of education. 1904 . . . . .	370-B64
Briggs. Routine and ideals. 1904 . . . . .	370.4-B761
——— School, college, and character. 1901 . . . . .	370.4-B76
Butler. The meaning of education. 1898 . . . . .	370.4-B97
Butler, ed. Education in the United States. 2 v. 1900 . . . . .	370.4-B973
Chancellor. Motives, ideals, and values in education. 1907 . . . . .	370.1-C36
Comenius. The great didactic. 1896 . . . . .	370-C73
——— Orbis pictus. 1887 . . . . .	370-C731
Currie. Principles and practice of common school education. 188—	370-C93
Davidson. Rousseau and education according to nature. 1898 . . . . .	370-D28
De Garmo. Interest and education. 1902 . . . . .	370-D36
Dewey. The school and society. 1899 . . . . .	370.4-D61
Dutton. Social phases of education in the school and the home. 1899	370.4-D96
Eliot. Educational reform. 1898 . . . . .	370.4-E14
Felkin. Introduction to Herbart's science and practice of education. 1895 . . . . .	370.1-F33
Fitch. Educational aims and methods. 1900 . . . . .	370.4-F55
Fletcher, ed. Sonnenschein's cyclopædia of education. 1889 . . . . .	370.3-F63
Hanus. Educational aims and educational values. 1899 . . . . .	370.4-H19
——— A modern school. 1904 . . . . .	370.4-H191
Hart. Studies in American education. 1895 . . . . .	370.4-H25
Henderson. Education and the larger life. 1902 . . . . .	370.4-H38
Herbart. Outlines of educational doctrine. 1901 . . . . .	370-H41
Horne. Philosophy of education. 1904 . . . . .	370.1-H78
Huxley. Science and education. 1894 . . . . .	370.4-H98
Kay. Education and educators. 1888 . . . . .	370-K18
Kiddle and Schem, eds. Cyclopædia of education. 1877 . . . . .	370.3-K53
——— Dictionary of education and instruction. Based upon the <i>Cyclopædia of education</i> . 1881 . . . . .	370.3-K533
Locke. Some thoughts concerning education. 1880 . . . . .	370-L79
Lyttelton, and others. Thirteen essays on education. 1891 . . . . .	370.4-L99
McMurry. Elements of general method, based on the principles of Herbart. 1903 . . . . .	370.1-M23
Mann. [Life and works of Horace Mann. Ed. by Mrs. Mann.] 5 v. 1891 . . . . .	370.8-M313
Moncrieff. A book about dominies. 1869 . . . . .	370.4-M74
Montaigne. Education of children. 1899 . . . . .	370-M76

u, comp. Educational mosaics: a collection from many writers (chiefly modern) of thoughts bearing on educational questions of the day. 1887 . . . . .	370-M82
ay. Essays educational. By Brother Azarias. 1896 . . . . .	370.4-M91
The rebuilding of old commonwealths. [Southern states.] 902 . . . . .	370.4-P14
son, comp. Patterson's college and school directory of the United States and Canada. 1906 . . . . .	R
Contributions to the science of education. 1886 . . . . .	370.4-P291
Lectures on the science and art of education. 1884 . . . . .	370.4-P29
e. Thoughts and experience in and out of school. 1900 . . . . .	370.4-P32
kranz. Philosophy of education. 1893 . . . . .	370.1-R72
seau. Emile; or concerning education. Tr. by Eleanor Worthington. 1888 . . . . .	370-R7652
— Emile; or, treatise on education. Tr. by W. H. Payne. 893 . . . . .	370-R7651
ckerath. Jesuit education. 1903 . . . . .	370-Sch98
ng. Education and the higher life. 1890 . . . . .	370.4-Sp16
— Means and ends of education. 1901 . . . . .	370.4-Sp163
— Opportunity, and other essays and addresses. 1900 . . . . .	370.4-Sp162
— Thoughts and theories of life and education. 1901 . . . . .	370.4-Sp164
ar. Education, intellectual, moral, and physical. 1898 . . . . .	370-Sp3
r. Debateable claims: essays on secondary education. 1898 . . . . .	370.4-T17
— Some observations of a foster parent. 1899 . . . . .	370.4-T171
Philosophy of education. 1885 . . . . .	370.1-T18
Growth in education. 1907 . . . . .	370-T97
r. Discussion in education. 1899 . . . . .	370.4-W15

## HISTORY OF EDUCATION

r. Educational systems of Great Britain and Ireland. 1898 . . . . .	370.9-B19
Education in the United States. 1889 . . . . .	370.9-B64
yré. History of pedagogy. 1888 . . . . .	370.9-C73
rly. Syllabus of lectures on the history of education, with selected bibliographies. 2 v. 1902 . . . . .	370.9-C89
son. Aristotle and ancient educational ideals. 1892 . . . . .	370.9-D28
— Education of the Greek people, and its influence on civilization. 1894 . . . . .	370.9-D281
r. History of education in the United States. 1904 . . . . .	370.9-D62
an. Twelve lectures on the history of pedagogy. 1874 . . . . .	370.9-H12
History of education. 1901 . . . . .	370.9-K32
s. Historical survey of pre-Christian education. 1895 . . . . .	370.9-L37
— Studies in the history of educational opinion from the renaissance. 1903 . . . . .	370.9-L371
e. Source book of the history of education for the Greek and Roman period. 1901 . . . . .	370.9-M75
— Text-book in the history of education. 1905 . . . . .	370.9-M751
oe. The educational ideal. 1895 . . . . .	370.9-M92
ar. History of education. 1893 . . . . .	370.9-P16
Essays on educational reformers. 1890 . . . . .	370.9-Q4
History of education. 1899 . . . . .	370.9-Se3
Alcuin and the rise of the Christian schools. 1892 . . . . .	370.9-W52
vard. Vittorino da Feltre and other humanist educators. 897. . . . .	370.9-W87

## TEACHING AND METHODS

Abbott. The teacher. 1884 . . . . .	371-Ab2
Bagley. Classroom management. 1907 . . . . .	317-B14
Baldwin. Art of school management. 1881 . . . . .	371-B19
——— Psychology applied to the art of teaching. 1892 . . . . .	371-B191
Barnett. Common sense in education and teaching. 1899 . . . . .	371-B261
Barnett, ed. Teaching and organisation. 1897 . . . . .	371-B26
Beale, and others. Work and play in girls' schools. 1898 . . . . .	371-B36
Blakiston. The teacher: hints on school management. 1879 . . . . .	371-B58
Brooks. Normal methods of teaching. 1887 . . . . .	371.3-B79
Compayré. Lectures on pedagogy. 1890 . . . . .	371-C73
De Garmo. The essentials of method. 1899 . . . . .	371.3-D36
——— Herbart and the Herbartians. 1896 . . . . .	371.4-D36
Dodd. Introduction to the Herbartian principles of teaching. 1898 . . . . .	371.4-D66
Fitch. Lectures on teaching. 1887 . . . . .	371-F55
Froebel. The education of man. 1892 . . . . .	371.4-F92
Gilbert. The school and its life. 1906 . . . . .	371-G37
Herbart. A B C of sense-perception, and minor pedagogical works 1896 . . . . .	371.4-H41
Hill. Seven lamps for the teacher's way. 1904 . . . . .	371-H55
Hinsdale. Art of study. 1900 . . . . .	371.3-H59
Hughes. Froebel's educational laws for all teachers. 1898 . . . . .	371.4-H87
——— Mistakes in teaching. 1899 . . . . .	371-H87
Johonnot. Principles and practice of teaching. 1891 . . . . .	371-J66
Kiddle, and others. How to teach. 1877 . . . . .	371.3-K53
Landon. Principles and practice of teaching and class manage- ment. 1894 . . . . .	371-L23
——— School management. 1903 . . . . .	371-L231
McMurry and Morton. Method of the recitation. 1903 . . . . .	371.3-M229
Page. Theory and practice of teaching. 1885 . . . . .	371-P14
Parker. Notes of talks on teaching. 1891 . . . . .	371-P221
Patrick. Elements of pedagogics. 1895 . . . . .	371-P27
Pestalozzi. How Gertrude teaches her children. 1894 . . . . .	371.4-P43
——— Leonard and Gertrude. 1885 . . . . .	P437L
Pinloche. Pestalozzi and the foundation of the modern elementary school. 1901 . . . . .	371.4-P65
Prince. Courses and methods. 1886 . . . . .	371.3-P93
Putnam. Manual of pedagogics. 1895 . . . . .	371-P98
Rosenkranz. Pedagogics as a system. 1872 . . . . .	371-R72
Salmon. Art of teaching. 1898 . . . . .	371-Sa3
Schaeffer. Thinking and learning to think. 1901 . . . . .	371-Sch1
Search. An ideal school. 1901 . . . . .	371-Se1
Smith. Systematic methodology. 1900 . . . . .	371-Sm5
Successful teaching: fifteen studies by practical teachers. 1906 . . . . .	371-Su12
Swett. Methods of teaching. 1880 . . . . .	371-Sw4
Thring. Theory and practice of teaching. 1883 . . . . .	371-T41
Tompkins. Philosophy of school management. 1895 . . . . .	371-T59
White. Elements of pedagogy. 1886 . . . . .	371-W58
——— School management. 1892 . . . . .	371.5-W58
Wilson. Pedagogues and parents. 1904 . . . . .	370.4-W69
Winterburn. Methods in teaching. 1907 . . . . .	371-W73
Wyman. Progress in school discipline. 1867 . . . . .	371.5-W98

## ELEMENTARY EDUCATION

Aber. An experiment in education. 1897 . . . . .	372-Ab3
Arnold. Waymarks for teachers. 1893 . . . . .	372-Ar6
Bryant. How to tell stories to children. 1905 . . . . .	372-B84
——— Stories to tell to children. 1907 . . . . .	372-B841
Comenius. School of infancy. 1893 . . . . .	372-C73
Currie. Principles and practice of early and infant school education. 1887 . . . . .	372-C93
George. The plan book. Intermediate grades. 3 v. 1899-1900 . . . . .	372-G29
——— The plan book. Primary. 3 v. 1897-98 . . . . .	372-G291
Johnson. Education by plays and games. 1907 . . . . .	372-J63
Malleson. Notes on the early training of children. 1897 . . . . .	372-M29
National education association. Report of the committee of fifteen on elementary education. 1895 . . . . .	372-N21
Oppenheim. Development of the child. 1898 . . . . .	372-Op5
Warner. The nervous system of the child. 1900 . . . . .	372-W241
——— Study of children and their school training. 1897 . . . . .	372-W24
Willis and Farmer. Month by month books. 3 v. 1904 . . . . .	372-W67
Wiltse. Place of the story in early education, and other essays. 1902 . . . . .	372-W71

## KINDERGARTEN

Barnard, ed. Kindergarten and child culture papers. 1884 . . . . .	372.2-B25
Bates. Kindergarten guide. 1897 . . . . .	372.2-B31
Blow. Letters to a mother on the philosophy of Froebel. 1899 . . . . .	372.2-B621
——— Symbolic education: a commentary on Froebel's "Mother play." 1894 . . . . .	372.2-B62
Boston collection of kindergarten stories. 4th ed. 1904 . . . . .	372.2-B65
Froebel. Education by development: the second part of the <i>Pedagogics of the Kindergarten</i> . 1899 . . . . .	372.2-F921
——— Mottoes and commentaries of Friedrich Froebel's "Mother play." 1895 . . . . .	372.2-F9212
——— Pedagogics of the kindergarten. 1895 . . . . .	372.2-F92
——— Songs and music of Friedrich Froebel's "Mother play." 1895 . . . . .	372.2-F9211
Gregory. Practical suggestions for kindergartens, primary teachers, and mothers. 1893 . . . . .	372.2-G86
Hailman. Kindergarten culture. 1873 . . . . .	372.2-H12
Harrison. Study of child-nature from the kindergarten standpoint. 1892 . . . . .	372.2-H24
——— Two children of the foothills. 1900 . . . . .	372.2-H2411
Hubbard, comp. Merry songs and games for the use of the kindergarten. 1887 . . . . .	372.2-H86
Kriege. The child, its nature and relations: an elucidation of Froebel's principles of education. 1872 . . . . .	372.2-K89
Lindsay. Mother stories. 4th ed. 1903 . . . . .	372.2-L64
——— More mother stories. 1905 . . . . .	372.2-L641
Marenholtz-Bülow. The child and child-nature. 1894 . . . . .	372.2-M33
Palmer. Twelve songs for kindergarten and primary schools. 1905 . . . . .	372-P18
Poulsson. Holiday songs and every day songs and games. 1904 . . . . .	372.2-P86
——— In the child's world. 1893 . . . . .	372.2-P861
——— Nursery finger plays. 1893 . . . . .	372.2-P862
Riggs. Children's rights. 1892 . . . . .	372.2-R44

Riggs, <i>ed.</i> The kindergarten. 1893 . . . . .	372.2-R441
Riggs and Smith. Froebel's gifts. 1895 . . . . .	372.2-R4411
———— Froebel's occupations. 1896 . . . . .	372.2-R4413
———— Kindergarten principles and practice. (The re- public of childhood, v. 3.) 1896 . . . . .	372.2-R4413
Sage and Cooley. Occupations for little fingers. 1905 . . . . .	371.4-Sa12
Shirreff. The kindergarten at home . . . . .	372.2-Sh61
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school gymnastics with light apparatus. 1901 . . . . .	371.7-B22
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Bailey. School sanitation and decoration. 1899 . . . . .	371.6-B94
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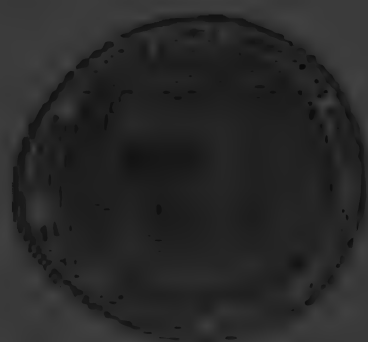
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Annual Report

of 1908

SCHOOL COMMITTEE



1908

PRINTED BY THE CITY OF BOSTON



City of Cambridge  
Massachusetts

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ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

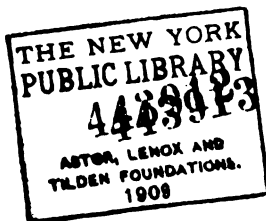
PREPARED BY THE

SUPERINTENDENT OF SCHOOLS

1908



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255 Atlantic Avenue,  
Boston, Mass.

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## SCHOOL COMMITTEE

1908

---

WILLIAM TAGGARD PIPER, *President*

- \*MR. WARREN P. ADAMS, 12 Sumner Road
- \*REV. GEORGE W. BICKNELL, D. D., 330 Harvard Street
- LAWRENCE G. BROOKS, ESQ., 8 Francis Avenue
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- DR. JOHN E. SOMERS, 1979 Massachusetts Avenue
- REV. ROBERT WALKER, 74 Fourth Street

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SANFORD B. HUBBARD, *Secretary and Agent*  
WILLIAM E. McANAU, *Page*

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Regular meetings of the school committee are held on the third  
Thursday of each month at 8 o'clock P.M.

---

### SUPERINTENDENT OF SCHOOLS

WILLIAM C. BATES . . . . . Residence, 13 Forest Street

### OFFICE HOURS

CITY HALL

From 4 to 5 o'clock P.M. on school days

---

\*Elected at large

## STANDING COMMITTEES

---

*Teachers*—Mr. Bicknell, Mr. Walker, Mr. Piper, Mr. Adams, and Mr. Somers.

*Text-Books*—Mr. Brooks, Mr. Lancaster, Mr. Russell, Mr. Bicknell, and Mr. Sharkey.

*Schoolhouses*—Mr. Somers, Mr. Lancaster, Mr. Cheney, Mr. Counihan, and Mr. Sands.

*High Schools*—Mr. Lancaster, Mr. Piper, Mrs. Chase, Mr. Brooks, and Mr. Counihan.

*Training School*—Mr. Sands, Mr. Walker, Miss Kinsman, Mr. Cheney, and Mr. Somers.

*Kindergartens*—Mrs. Chase, Mr. Lew, Mr. Walker, Miss Kinsman, and Mr. Sharkey.

*Evening Schools*—Mr. Walker, Mr. Brooks, Mrs. Chase, Mr. Lew, and Mr. Adams.

*Special Studies*—Mr. Bicknell, Mr. Sharkey, Mr. Lew, Miss Kinsman, and Mr. Counihan.

*Rules*—Mr. Russell, Mr. Adams, and Mr. Counihan.

*Finance*—The President, *ex officio*, Mr. Russell, and Mr. Sands.

*Supplies*—Mr. Russell, Mr. Cheney, and Mr. Brooks.

## THE ASSIGNMENT OF SCHOOLS

---

The schools are assigned to individual members of the school committee as follows:

*To Mr. Adams*—The Agassiz, the Felton, and the Riverside.

*To Mr. Bicknell*—The Harvard, and the Merrill.

*To Mr. Brooks*—The Holmes, and the Houghton.

*To Mrs. Chase*—The Peabody.

*To Mr. Cheney*—The Parker, and the Roberts.

*To Mr. Counihan*—The Gore, and the Thorndike.

*To Miss Kinsman*—The Boardman, and the Willard.

*To Mr. Lancaster*—The Morse, and the Tarbell.

*To Mr. Lew*—The Webster.

*To Mr. Piper*—The Cushing, the Lowell, and the Russell.

*To Mr. Russell*—The Fletcher, and the Gannett.

*To Mr. Sands*—The Reed, the Shepard, and the Wyman.

*To Mr. Sharkey*—The Kelley, and the Otis.

*To Mr. Somers*—The Ellis, and the Sleeper.

*To Mr. Walker*—The Lassell, the Putnam, and the Taylor.

The kindergartens are assigned to the members of the Committee on Kindergartens.



## Report of the School Committee for 1908

compliance with Section 44 of the Rules of the School Board, the Superintendent herewith submits his third annual report, it being the year ending December 31, 1908:

### POPULATION OF CAMBRIDGE.

. . . . .	20,473	1885	. . . . .	59,660
. . . . .	29,112	1895	. . . . .	81,643
. . . . .	47,838	1905	. . . . .	97,434

### SCHOOL CENSUS.

Number of children in the city five years old or more, but less than ten.

in May)	. . . . .	8,128	1905 (taken in September)	. . . . .	15,858
in May)	. . . . .	10,957	1907 (taken in September)	. . . . .	16,110
in May)	. . . . .	12,869	1908 (taken in September)	. . . . .	16,594

### SCHOOLS AND CLASSROOMS.

#### DECEMBER, 1908.

School . . . . .	1	Classrooms in use . . . . .	16
High School . . . . .	1	" " . . . . .	14
Manual Training School . . . . .	1	" " . . . . .	15
War Schools . . . . .	5	" " . . . . .	71
War and Primary Schools . . . . .	13	" " . . . . .	154
War Schools . . . . .	15	" " . . . . .	78
War Artens . . . . .	16	" " . . . . .	16
Industrial School . . . . .	1	" " . . . . .	4
Drawing Schools . . . . .	2	" " . . . . .	4
High School . . . . .	1	" " . . . . .	11
Elementary Schools . . . . .	4	" " . . . . .	33
Number of Day Schools . . . . .			52
Number of classrooms for Day Schools . . . . .			364
Number of Evening Schools . . . . .			8
Number of classrooms for Evening Schools . . . . .			52

This school has a library, a chemical laboratory, a physical laboratory, a lecture room, an assembly hall, and recitation rooms.

This school has an assembly hall, a lecture room, a chemical laboratory, a physical drawing room, and recitation rooms.

This school occupies three buildings and has an assembly hall, chemical and physical drawing rooms, recitation rooms, and rooms for various kinds of shopwork.

Four of these schools have assembly halls.

None of these have assembly halls.

These schools and the industrial classes in the evening elementary schools are carried in the direction of the Massachusetts Commission on Industrial Education.

## REPORT OF SCHOOL COMMITTEE

## NUMBER OF TEACHERS IN THE DAY SCHOOLS.

The directors of special studies and the teachers of sewing are included in the totals.]

December	Latin School	English High School	Rindge Manual Training School	Grammar Schools	Primary Schools	Kinder-gartens	Total
1904	23	24	19	187	142	29	434
1905	24	24	22	191	144	32	447
1906	25	25	22	199	143	31	445
1907	25	26	25	199	143	31	450
1908	23	27	24	200	141	30	445

\*Four unassigned teachers are included in the totals for 1905, 1906, and 1907, and unassigned teachers and one consulting teacher in the total for 1908.

†Twenty-six regular teachers and one consulting teacher.

## ATTENDANCE AT ALL THE DAY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1904	16,257	14,454	13,361	92.4
1905	16,381	14,606	13,550	92.8
1906	16,740	14,907	13,855	92.9
1907	16,803	14,957	13,878	92.8
1908	17,135	15,214	14,144	92.9

## ATTENDANCE AT THE LATIN SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1904	516	487	465	95.5
1905	564	531	506	95.2
1906	577	530	508	95.8
1907	544	489	471	96.3
1908	547	506	487	96.2

## ATTENDANCE AT THE ENGLISH HIGH SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1904	605	556	530	95.4
1905	595	550	525	95.5
1906	619	570	545	95.8
1907	666	594	570	95.9
1908	640	584	560	95.8

# REPORT OF SCHOOL COMMITTEE

11

## ATTENDANCE AT THE RINDGE MANUAL TRAINING SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1904	351	315	302	95.9
1905	426	396	377	95.1
1906	489	440	417	94.7
1907	475	428	409	95.6
1908	549	489	461	94.2

## ATTENDANCE AT THE GRAMMAR SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1904	7,322	6,701	6,316	94.3
1905	7,457	6,713	6,331	94.3
1906	7,412	6,887	6,508	94.5
1907	7,869	7,192	6,783	94.3
1908	7,909	7,283	6,892	94.6

## ATTENDANCE AT THE PRIMARY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1904	6,534	5,705	5,194	91.0
1905	6,359	5,629	5,173	91.9
1906	6,682	5,738	5,273	91.9
1907	6,324	5,551	5,092	91.7
1908	6,562	5,653	5,171	91.5

## ATTENDANCE AT THE KINDERGARTENS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1904	929	690	554	80.2
1905	980	787	638	81.1
1906	961	742	604	81.3
1907	925	703	553	78.7
1908	928	699	573	81.9



## REPORT OF SCHOOL COMMITTEE

**NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE LATIN SCHOOL -  
Course, 5 years.**

Year	Boys	Average Age	Girls	Average Age
1904	67	14 years 5 months	91	14 years 7 months
1905	61	14 years 6 months	92	14 years 8 months
1906	67	14 years 2 months	85	14 years 2 months
1907	64	14 years 3 months	85	14 years 3 months
1908	88	14 years 2 months	71	14 years 5 months

**NUMBER OF PUPILS GRADUATED FROM THE LATIN SCHOOL.  
Course, 5 years.**

Year	Boys	Average Age	Girls	Average Age
1904	19	18 years 1 month	31	18 years 9 months
1905	40	18 years 11 months	30	18 years 7 months
1906	27	18 years 6 months	32	18 years 8 months
1907	22	18 years 11 months	35	18 years 4 months
1908	27	18 years 8 months	35	18 years 8 months

**NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE ENGLISH HIGH SCHOOL.**

Year	Boys	Average Age	Girls	Average Age
1904	24	14 years 5 months	186	15 years 0 months
1905	10	14 years 6 months	209	14 years 6 months
1906	17	14 years 6 months	233	14 years 11 months
1907	4	13 years 4 months	254	14 years 10 months
1908	4	13 years 3 months	256	14 years 11 months

**NUMBER OF PUPILS GRADUATED FROM THE ENGLISH HIGH SCHOOL.**

Year	Boys	Average Age	Girls	Average Age
1904	12	18 years 7 months	64	18 years 9 months
1905	13	18 years 10 months	61	18 years 9 months
1906	7	17 years 7 months	67	18 years 5 months
1907	11	19 years 1 months	108	18 years 7 months
1908	7	17 years 10 months	67	18 years 3 months

**NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE RINDGE MANUAL  
TRAINING SCHOOL, WITH THE NUMBER OF GRADUATES.**

Year	Admitted	Average Age	Graduated	Average Age
1904	194	15 years 0 months	30	18 years 3 months
1905	199	15 years 0 months	32	18 years 7 months
1906	167	14 years 11 months	45	18 years 9 months
1907	203	15 years 0 months	33	19 years 0 months
1908	205	15 years 0 months	51	18 years 8 months

**NUMBER OF PUPILS GRADUATED FROM THE GRAMMAR AND PRIMARY SCHOOLS.**

Year	Grammar Schools. Course, 6 years	Average Age	Primary Schools. Course, 3 years	Average Age
1904	708	14 years 10 months	1,444	9 years 6 months
1905	720	14 years 10 months	1,427	9 years 6 months
1906	713	14 years 9 months	1,609	9 years 5 months
1907	735	14 years 9 months	1,467	9 years 5 months
1908	753	14 years 9 months	1,543	9 years 6 months

**LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE GRAMMAR  
SCHOOLS.**

Year	In 4 years	In 5 years	In 6 years	In 7 years or more
1904	5 per cent	28 per cent	52 per cent	15 per cent
1905	6 per cent	28 per cent	53 per cent	13 per cent
1906	6 per cent	27 per cent	51 per cent	16 per cent
1907	6 per cent	27 per cent	50 per cent	17 per cent
1908	7 per cent	24 per cent	52 per cent	17 per cent

**LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE PRIMARY  
SCHOOLS.**

Year	In less than 3 years	In 3 years	In 3½ years	In 4 years	In 4½ years or more
1904	6 per cent	54 per cent	6 per cent	24 per cent	10 per cent
1905	3 per cent	60 per cent	6 per cent	21 per cent	10 per cent
1906	5 per cent	58 per cent	4 per cent	25 per cent	8 per cent
1907	4 per cent	61 per cent	3 per cent	23 per cent	9 per cent
1908	5 per cent	64 per cent	3 per cent	22 per cent	6 per cent

## REPORT OF SCHOOL COMMITTEE

## NUMBER OF PUPILS IN THE LATIN SCHOOL, DECEMBER, 1908.

Grade	Boys	Girls	Total	Per cent
Fourteenth.....	25	31	56	.107
Thirteenth.....	26	45	71	.135
Twelfth.....	50	56	106	.202
Eleventh.....	57	75	132	.251
Tenth.....	87	73	160	.305
Total.....	245	280	525	

## NUMBER OF PUPILS IN THE ENGLISH HIGH SCHOOL, DECEMBER, 1908.

Grade	Girls		Per cent
Thirteenth.....	86	This school is for girls only. It became a girls' school, September 17, 1908.	.148
Twelfth.....	101		.174
Eleventh.....	165		.283
Tenth.....	225		.387
Specials.....	5		.008
Total.....	582		

## NUMBER OF PUPILS IN THE RINDGE MANUAL TRAINING SCHOOL, DECEMBER, 1908.

Grade	Boys		Per cent
Thirteenth.....	82	This school is for boys only. It became a part of the public school system, January 1, 1899.	.148
Twelfth.....	108		.195
Eleventh.....	169		.305
Tenth.....	195		.352
Total.....	554		

## NUMBER OF PUPILS IN THE GRAMMAR SCHOOLS, DECEMBER, 1908.

Grade	Boys	Girls	Total	Per cent
Ninth.....	314	401	715	.093
D.....	59	57	116	.015
Eighth.....	448	460	908	.117
C.....	81	76	157	.020
Seventh.....	588	568	1,156	.150
Sixth.....	657	642	1,299	.168
B.....	100	121	221	.028
Fifth.....	758	647	1,405	.182
A.....	155	176	331	.043
Fourth.....	759	659	1,418	.184
Total.....	3,919	3,807	7,726	

## NUMBER OF PUPILS IN THE PRIMARY SCHOOLS, DECEMBER, 1908.

Grade	Boys	Girls	Total	Per cent
Third.....	920	818	1,738	.302
Second.....	928	854	1,782	.309
First.....	1,217	1,028	2,245	.389
Total.....	3,065	2,700	5,765	

## NUMBER OF PUPILS AND TEACHERS IN THE KINDERGARTENS.

Year	Boys	Girls	Total	Number of Teachers
1905	415	419	834	32
1906	398	402	800	31
1907	404	376	780	31
1908	427	440	867	30

## ATTENDANCE AT THE EVENING HIGH AND ELEMENTARY SCHOOLS FROM OCTOBER 14, 1907, TO MARCH 20, 1908, NOT INCLUDING THE ATTENDANCE AT THE INDUSTRIAL CLASSES IN THE ELEMENTARY SCHOOLS.

	Number Registered	Average Attendance	Number of Graduates
Evening High.....	389	185	26
Evening.....	712	296	25
Evening.....	819	299	38
Evening.....	106	60	12
Evening.....	236	93	13
Total.....	2,262	933	114

Beginning with October 14, 1907, the two evening drawing schools, the Evening Industrial School at the Rindge Manual Training School building, and the classes in dressmaking andinery at the evening elementary schools were carried on under the direction of the Massachusetts Commission on Industrial Education.

## ATTENDANCE AT THE EVENING INDUSTRIAL AND DRAWING SCHOOLS AND INDUSTRIAL CLASSES FROM OCTOBER 14, 1907, TO MARCH 20, 1908.

	Number Registered	Average Attendance	Number of Graduates
Industrial.....	93	57	3
Mechanical Drawing.....	78	47	5
Free-hand Drawing.....	64	30	6
Evening Industrial Classes.....	161	64	....
Evening Industrial Classes.....	173	61	....
Evening Industrial Classes.....	88	48	....
Evening Industrial Classes.....	58	17	....
Total.....	715	324	14

## REPORT OF SCHOOL COMMITTEE

NUMBER OF PUPILS IN THE PRIVATE SCHOOLS IN CAMBRIDGE, INCLUDING  
THOSE IN THE PAROCHIAL SCHOOLS.

1903	1904	1905	1906	1907	1908
3,711	4,047	4,100	4,068	4,227	4,014

## NUMBER OF AGE AND SCHOOLING CERTIFICATES ISSUED.

1903	1904	1905	1906	1907	1908
565 *655	578 *859	666 *749	851 *1,137	868 *857	63- 6 *53- 8

\*Issued to minors over sixteen years of age, in accordance with the law of 1902.

## COST OF INSTRUCTION IN THE DAY SCHOOLS.

Salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers.

Year	Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for Year Ending in June	Total Cost	Cost per Pupil
1902	417	14,747	14,244	\$343,787 00	\$24 14
1903	428	14,935	14,397	349,179 80	24 25
1904	435	15,075	14,454	356,406 89	24 66
1905	*451	15,364	14,606	366,448 39	25 09
1906	*459	15,475	14,907	377,343 02	25 31
1907	*464	15,580	14,957	385,927 00	25 80
1908	*459	16,019	15,214	374,000 99	24 58

## COST OF THE DAY SCHOOLS.

Cost of instruction, of text-books and supplies, of incidental expenses, of the care of truants, of the care of schoolhouses, and of the transportation of pupils.

Year	Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for Year Ending in June	Total Cost	Cost per Pupil
1902	417	14,747	14,244	\$427,356 71	\$30 00
1903	428	14,935	14,397	429,554 39	29 84
1904	435	15,075	14,454	450,310 44	31 15
1905	*451	15,364	14,606	462,412 09	31 66
1906	*459	15,475	14,907	464,529 43	31 16
1907	*464	15,580	14,957	488,636 18	32 67
1908	*459	16,019	15,214	477,286 82	31 37

\*Four unassigned teachers are included in the totals for 1905, 1906, and 1907, and five unassigned teachers and one consulting teacher in the total for 1908.

LIST OF INSTRUCTION IN THE EVENING SCHOOLS, INCLUDING THE INDUSTRIAL SCHOOLS WHICH HAVE BEEN CARRIED ON UNDER THE DIRECTION OF THE MASSACHUSETTS COMMISSION ON INDUSTRIAL EDUCATION SINCE OCTOBER 14, 1907.

Year	Drawing	Industrial	High	Elementary	Total
1904	\$1,343 00	.....	\$1,577 50	\$5,708 00	\$8,628 50
1905	1,491 00	\$180 00	1,709 00	6,436 00	9,816 00
1906	1,647 00	788 00	1,830 00	7,440 50	11,705 50
1907	1,274 00	831 00	1,380 00	5,587 00	9,072 00
1908	1,342 00	1,474 00	1,839 00	7,980 00	12,635 00

FINANCIAL STATEMENT OF EXPENDITURES MADE BY THE SCHOOL COMMITTEE FROM DECEMBER 1, 1907, TO DECEMBER 1, 1908.

Cost of instruction . . . . .	\$386,635 99
Cost of text-books and supplies . . . . .	22,514 24
Cost of care of buildings, including heat and light . . . . .	79,455 94
Expended for care of truants . . . . .	2,564 99
Expended for incidentals . . . . .	2,102 18
Expended for care of flags . . . . .	268 10
Expended for transportation of pupils . . . . .	321 00
Expended for equipment for Rindge Manual Training School . . . . .	2,570 16
Expended for repairs to buildings, etc. . . . .	26,796 55
Expended for furniture . . . . .	2,087 61
Expended for vacation schools . . . . .	1,791 18
Amount expended for all school purposes excepting new buildings deducting from the above the amount received for the tuition of State Minor Wards, \$794.50, the tuition of non-resident pupils, \$7,107.01, the amount received for the sale of and damages to books, \$743.89, and the amount received for the sale of old material in the building department, \$31.93 . . . . .	\$527,107 94 8,677 33
he net cost of maintaining the schools is . . . . .	\$518,430 61

he evening drawing schools, the Evening Industrial School and the dress-making and millinery classes in the evening elementary schools have been carried on under the direction of the Massachusetts Commission on Industrial Education since October 14, 1907, and for the winter of 1907-1908 the total cost of these schools was \$5,717.52; the city has filed a claim for the reimbursement of one-half of this amount, in accordance with Chapter 505 of the Acts of 1906.

he city has expended on the Wellington School building \$11,097.81 to December 1, 1908, to repair the damages caused by the fire of February 10, and to enlarge and rebuild the part of the building toward Lincoln Street. The city council has appropriated \$85,000 for this purpose.

## TABULAR VIEW

DECEMBER 31, 1908.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1908
Latin.....	William F. Bradbury.....	\$3,000	525
	John I. Phinney.....	2,000	
	Cecil T. Derry.....	1,250	
	William J. Sands.....	1,200	
	Alfred R. Wightman.....	1,400	
	Jennie S. Spring.....	1,100	
	Helen M. Albee.....	950	
	Alice C. Baldwin.....	950	
	Almira W. Bates.....	950	
	Margaret S. Bradbury.....	950	
	Isabel S. Burton.....	950	
	Alice D. Chamberlain.....	950	
	Margaret C. Cotter.....	800	
	Caroline Drew.....	950	
	Elizabeth B. Flanders.....	900	
	Margaret J. Griffith.....	900	
	Mary C. Hardy.....	950	
	Rose Hardwick.....	950	
	Mabel E. Harris.....	950	
	Helen W. Munroe.....	950	
	Louisa P. Parker.....	950	
	Lena G. Perrigo.....	950	
	Ethel V. Sampson.....	950	
	*Annie S. Dodge.....	650	
English High.....	†Ray Greene Huling.....	500	582
	†Grace L. Deering.....	2,000	
	Richard Benson.....	1,200	
	Chester M. Bliss.....	1,700	
	Joseph A. Coolidge.....	1,800	
	Chester M. Grover.....	1,800	
	S. Myrta Abbott.....	850	
	Ethel E. Carr.....	700	
	Caroline Close.....	950	
	Bertha L. Cogswell.....	950	
	Susan A. Collins.....	500	
	Gertrude H. Crook.....	950	
	Mary L. Cunningham.....	950	
	Grace E. Dennett.....	850	
	Esther S. Dodge.....	950	
	Elizabeth L. Huling.....	850	
	Ellen P. Huling.....	800	
	Maud A. Lawson.....	950	
	Henrietta E. McIntire.....	950	
	Mary Moulton.....	950	
	Lillian C. Rogers.....	950	
	Caroline A. Sawyer.....	950	
	Florence W. Smith.....	950	
	Martha R. Smith.....	950	
	Delia M. Stickney.....	1,200	
	Annie F. Stratton.....	950	
	Mabel D. Watson.....	950	
	*Martha L. Bubbitt.....	650	

\*Secretary and Librarian.

†Consulting Teacher.

\*Acting Head Master.

## TABULAR VIEW—Continued.

as of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1908
Annual Training.	John W. Wood, Jr.....	\$3,000	554
	Myra I. Ellis.....	1,350	
	Helen W. Metcalf.....	950	
	Florence Waugh.....	950	
	Francis L. Bain.....	1,400	
	Otis H. Bramhall.....	900	
	Robert W. Broderick.....	800	
	Winburn S. Cannell.....	1,200	
	James F. Conlin.....	1,400	
	Richard H. Gallagher.....	1,500	
	Evan W. Griffiths.....	1,300	
	Melvin E. Haggerty.....	1,200	
	John C. Hall.....	1,000	
	Karl E. Johnson.....	400	
	Gustaf A. Lundquist.....	1,500	
	James E. MacWhinnie.....	1,500	
	Edward R. Markham.....	1,500	
	Lester E. Markham.....	900	
	Joseph M. Norton.....	1,250	
	Frederic H. Sawyer.....	1,000	
	Charles E. Stratton.....	1,500	
	James G. Telfer.....	1,500	
	Albert L. Ware.....	1,500	
	Howard A. Wiggins.....	1,000	
	*Myrta E. Smith.....	650	
{ Grammar .....	Maria L. Baldwin.....	\$1,000	{ 147 131
{ Primary.....	Frances W. Dawson.....	700	
	Lillian G. Goodwin.....	700	
	Catherine G. Kelley.....	550	
	Mary A. Parsons.....	700	
	Grace C. Stedman.....	700	
	Abby S. Taylor.....	700	
	Agnes L. Tracy.....	700	
1, Primary.....	Elizabeth J. Karcher.....	790	323
	Mabel E. Blake.....	700	
	Lillian M. Cuddy.....	650	
	Blanche M. Gould.....	650	
	Malvina M. Joslin.....	700	
	Goldie T. Lane.....	500	
	Lucy A. Roper.....	500	
	Jennie B. Ross.....	700	
Primary.....	Maude A. Deehan.....	780	73
	Sarah C. McManama.....	500	
mmar.....	Edward O. Grover.....	2,300	546
	Ernest Libby.....	1,200	
	Nellie A. Hutchins.....	900	
	Caroline L. Blake.....	800	
	Adelaide G. Bunker.....	750	
	Emma A. Faulkner.....	700	
	Lottie L. Griswold.....	700	

etary and Librarian.



## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1907
Ellis, Continued .....	Louise H. Griswold.....	\$700	
	Ellen J. Hunt.....	700	
	Flora C. Ingraham.....	700	
	Ida J. Mahoney.....	700	
	Sarah W. Mendell.....	700	
	Mary A. Stephenson.....	700	
	Josephine C. Wyman.....	700	
Felton, Primary.....	C. Florence Smith.....	780	176
	Marcia R. Bowman.....	700	
	Carrie H. Smith.....	700	
	Eleanor M. Stevens.....	700	
Fletcher, } Grammar..... } Primary.....	George B. Colesworthy.....	1,800	418 352
	Nellie A. Coburn.....	900	
	Frances E. Higgins.....	750	
	Gertrude M. Baker.....	650	
	Mary I. Chapin.....	700	
	Mary B. Cole.....	650	
	Mary A. Doran.....	700	
	Mary N. Flewelling.....	650	
	Mabel A. Gauthier.....	500	
	Elmira F. Hall.....	700	
	Julia M. Horgan.....	500	
	Olive I. McNulty.....	600	
	Martha B. Perkins.....	700	
	Marion Prescott.....	700	
	Susan L. Senter.....	700	
	Eva A. Taylor.....	700	
	Gertrude M. Webster.....	650	
	Emma G. Wentworth.....	700	
Gannett, Primary.....	Mary A. Rady.....	775	188
	Annie M. Billings.....	700	
	Margaret F. Sanderson.....	700	
	Gertrude T. Sullivan.....	700	
Gore, Primary.....	Frances E. Pendexter.....	810	403
	Catherine L. Dinneen.....	450	
	Katherine L. Dolan.....	700	
	Mary L. Donovan.....	650	
	Minnie A. Doran.....	700	
	Kate A. Hegarty.....	700	
	Katherine L. McElroy.....	700	
	Julia G. McHugh.....	700	
	Mary E. Mulloney.....	750	
	Anastasia Peters.....	700	
	Nora E. Reardon.....	700	
Harvard, Grammar.....	William L. MacGregor.....	1,500	743
	Margaret B. Wellington.....	900	
	Estella J. French.....	800	
	Hortense O. Young.....	750	
	Annie M. Street.....	750	

## TABULAR VIEW—Continued.

es of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1908
Continued....	Addie L. Bartlett.....	\$700	
	Esther L. Cogan.....	550	
	M. Blanche Craig.....	600	
	Frances Fabyan.....	700	
	Margaret M. Fearn.....	700	
	Jessie S. Hagan.....	600	
	Annie B. Lowell.....	700	
	Carolyn E. MacDonald.....	450	
	Gertrude P. McCusker.....	600	
	Waitie M. Nash.....	700	
	Laura L. Parmenter.....	700	
	Louise C. Patterson.....	700	
	Elizabeth L. Setchell.....	700	
Primary.....	Susan E. Wyeth.....	750	33
1, { Grammar..	John W. Freese.....	2,300	{ 543
{ Primary...	Blanche E. Townsend.....	900	{ 92
	Alice P. Fay.....	750	
	Grace D. Beckwith.....	700	
	Katharine F. Callahan.....	700	
	Catherine M. Doran.....	650	
	Mary L. Ellis.....	700	
	Katharine M. Greene.....	650	
	Gertrude A. Kenney.....	600	
	Emma Penney.....	700	
	Margaret J. Penney.....	700	
	Elizabeth F. Reed.....	700	
	Anna G. Scannell.....	650	
	Hattie Shepherd.....	700	
	Mary G. Snow.....	600	
Grammar.....	H. Warren Foss.....	\$1,600	{ 437
Primary.....	Catharine A. McLean.....	900	{ 348
	Ellen A. Kidder.....	750	
	Ellen T. Carroll.....	500	
	Alice V. Connelly.....	500	
	Olive L. Cook.....	700	
	Josephine Day.....	700	
	Maude M. Dutton.....	700	
	Mary L. Feeny.....	500	
	Lucy M. Fletcher.....	700	
	Carrie M. Ford.....	700	
	Emma J. Houlahan.....	700	
	Margaret B. McCullough.....	500	
	Mary E. Moran.....	650	
	Ethel I. Murch.....	700	
	Eva G. Oakes.....	700	
	Esther D. Paul.....	700	
	Carrie L. Power.....	700	
	Mary E. Regan.....	700	

## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pup. Dec. 31, 19
Lassell, Primary.....	Frances E. Whoriskey..... Rose V. Collier..... Elizabeth B. Gahm..... Mary E. Whoriskey.....	\$ 770 700 700 700	181
Lowell, { Grammar..... { Primary.....	Eusebia A. Minard..... Agnes J. McElroy..... Cora B. Poole.....	770 700 650	{ 39 7 C
Merrill, Primary.....	Louise W. Harris..... Julia M. Davis..... Henriette E. de Rochemont... Daisy E. Haynes..... Marion B. Magwire..... Gertrude S. Thayer..... Nellie F. Walker.....	800 700 700 700 700 700 700	244
Morse, { Grammar..... { Primary.....	Mary A. Townsend..... Mary E. Towle..... Clintina E. Curtis..... Ida J. Holmes..... Elizabeth J. Baldwin..... Edith M. Carman..... Christina R. Denyven..... Florence E. Hunter..... Grace E. Lally..... Alice E. May..... Helen Montague..... Mary E. Murray..... Anna A. O'Connell..... Elizabeth H. Richards..... Lucy M. Soulée..... Bertha J. Waldron..... Mary E. Warren..... Constance E. Yeames.....	2,300 900 800 750 700 650 700 700 450 700 700 450 700 700 700 700 700 700 600	{ 44 23
Otis, Primary.....	Ellen N. Leighton..... Frances Allen..... Anna E. Callahan..... Josephine M. Doherty..... Nettie I. Haft..... Luella M. Marsh..... Anna N. Sullivan..... Margaret Sullivan.....	785 700 700 700 550 700 700 700	312
Parker, Primary.....	Mary A. Knowles..... Mattie S. Cutting..... Harriet R. Harrington..... Jeannette Jacobson..... Agnes Marchant..... Mary E. Mullins.....	780 700 700 450 700 700	226

## TABULAR VIEW—Continued.

Names of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1908
} Grammar... } Primary....	Frederick S. Cutter.....	\$2,300	{ 378 177
	Charlotte A. Ewell.....	900	
	Katherine L. Carr.....	750	
	Anna F. Bellows.....	750	
	Susan C. Allison.....	700	
	Bernice E. Bartlett.....	500	
	Florence E. Bunton.....	500	
	Helen E. Hazard.....	700	
	Tina M. King.....	500	
	Isadore M. Thompson.....	700	
	Dora Trefethen.....	700	
	Alice M. Tufts.....	700	
	Lucy E. Whipple.....	650	
	Madeleine Wood.....	550	
Grammar.....	Frederick B. Thompson.....	2,300	663
	James E. White.....	1,400	
	Maude M. Mixer.....	900	
	Eliza S. Paddock.....	800	
	Grace Clark.....	750	
	Mary A. Carmichael.....	700	
	Martha Chisholm.....	700	
	Anna L. P. Collins.....	700	
	Elsie H. Cooter.....	500	
	Sarah M. Grieves.....	700	
	Annie B. Josselyn.....	700	
	Nellie A. Kerrigan.....	700	
	Jane E. McKearin.....	550	
	Margaret F. O'Keefe.....	700	
	Annie M. R. Sturtevant.....	500	
	Annie A. Trelegan.....	700	
	Minnie F. Wilson.....	700	
Primary.....	Margaret T. Burke.....	770	159
	Elizabeth G. Nelligan.....	700	
	Julia A. Robinson.....	700	
	Clara W. Ruggli.....	700	
e. Primary.....	Elizabeth A. Tower.....	770	203
	Amanda M. Alger.....	700	
	Mary A. Burke.....	700	
	Hattie A. Thayer.....	700	
} Grammar... } Primary....	W. Mortimer MacVicar.....	2,300	{ 633 68
	Sara A. Bailey.....	900	
	Emily R. Pitkin.....	750	
	Susan M. Adams.....	700	
	Mary Blair.....	700	
	Elizabeth M. Breslin.....	700	
	Mary M. Brigham.....	700	
	Faith Foxcroft.....	650	
	Mary F. Hill.....	650	
	Susan L. Keniston.....	700	
	Evelyn B. Kenney.....	700	

## TABULAR VIEW—Continued.

Names of Schools		Teachers	Salaries	No. of Pupils Dec. 31, 1908
Roberts, Continued . . .		Marjorie H. Lenox . . . . .	\$ 600	
		Ada M. Litchfield . . . . .	700	
		Sarah E. Magurn . . . . .	500	
		Rose A. Murray . . . . .	700	
		Ida G. Smith . . . . .	700	
		Gertrude A. White . . . . .	650	
		Caroline M. Williams . . . . .	700	
Russell, {	Grammar . . .	Arthur C. Wadsworth . . . . .	2,300	{ 401
	Primary . . .	Mary S. Bingham . . . . .	900	
		Adelaide D. Billings . . . . .	750	{ 106
		Carrie J. Allison . . . . .	700	
		Fannie P. Browning . . . . .	700	
		Ella E. Buttrick . . . . .	700	
		Mary A. Connelly . . . . .	700	
		Louise F. James . . . . .	650	
		Anna M. Lyons . . . . .	700	
		Louise I. MacWhinnie . . . . .	700	
		H. Maud Maclean . . . . .	700	
		Edith M. O'Brien . . . . .	650	
		Gertrude E. Russell . . . . .	700	
Shepard, {	Grammar . . .	Evelyn J. Locke . . . . .	1,000	{ 278
	Primary . . .	Mary F. Calnane . . . . .	700	
		Florence M. Dudley . . . . .	700	{ 129
		Alice M. Gage . . . . .	700	
		Mary M. Gilman . . . . .	700	
		Dora Leadbetter . . . . .	700	
		Theresa H. Mahoney . . . . .	700	
		Elizabeth J. O'Keefe . . . . .	650	
		Ellen T. O'Keefe . . . . .	700	
		Anna E. Welch . . . . .	700	
Sleeper, {	Grammar . . .	A. Estelle Ingraham . . . . .	1,000	{ 136
	Primary . . .	Emily Bissell . . . . .	700	
		Butella E. L. Conland . . . . .	700	{ 172
		Evelyn M. Dormer . . . . .	700	
		Elizabeth O. Haynes . . . . .	700	
		Melissa M. Lloyd . . . . .	700	
		Mary A. Macklin . . . . .	700	
		Helena Murphy . . . . .	450	
Tarbell, Primary . . . . .		Emma J. Young . . . . .	770	187
		Florence J. Alley . . . . .	700	
		Carrie P. Pierce . . . . .	700	
		Anna H. Welsh . . . . .	700	
Taylor, {	Grammar . . .	Ella R. Avery . . . . .	1,000	{ 129
	Primary . . .	Mary A. Boland . . . . .	700	
		Lillian M. Canty . . . . .	700	{ 219
		Alice V. Carmichael . . . . .	500	
		Alice G. Dacey . . . . .	450	
		Lillian W. Davis . . . . .	700	
		Emily M. Dowd . . . . .	600	

## TABULAR VIEW—Continued.

No. of Schools	Teachers	Salaries	No. of Pupils Dec. 31, 1908
Continued . . . .	Agnes K. Geary . . . . . Winifred B. Goodwillie . . . . . Mary A. Maguire . . . . .	\$ 450 650 700	
Grammar . . . .	Ruel H. Fletcher . . . . . Roger A. Powers . . . . . Harriet A. Townsend . . . . . Lydia A. Whitchee . . . . . Laura A. Westcott . . . . . Flora E. Cooter . . . . . Jennie W. Cronin . . . . . Grace W. Fletcher . . . . . Eulalia L. Herald . . . . . Lillian H. Kenney . . . . . Margaret M. Mahoney . . . . . Ethel M. McLeod . . . . . Ellen M. Plympton . . . . . Mabel A. Short . . . . .	2,300 1,000 900 800 750 700 700 700 700 700 600 650 700 700	481
Grammar . . . .	John D. Billings . . . . . H. Herbert Richardson . . . . . Alice C. Phinney . . . . . Martha N. Hanson . . . . . Ada A. Billings . . . . . Mabel T. Ashley . . . . . Charlotte M. Chase . . . . . Fanny F. Curtis . . . . . Susan I. Downs . . . . . Gertrude B. Duffy . . . . . Josephine Hills . . . . . Gertrude I. Johnson . . . . . Carolyn E. Mann . . . . . Nora P. Nason . . . . . Lena B. Noyes . . . . . Minnie V. Reid . . . . . Harriette E. Shepard . . . . . Olive L. Slater . . . . . Eleanor B. Spooner . . . . .	2,300 1,400 900 800 750 700 700 700 700 700 700 700 700 700 600 700 700 700 450	801
{ Grammar . . . .	Herbert H. Bates . . . . .	2,800	{ 465
{ Primary . . . .	Sarah J. Gunnison . . . . .	1,000	{ 227
	Margaret Kidd . . . . .	1,000	
	Mary I. Vinton . . . . .	1,000	
	Carrie H. Stevens . . . . .	900	
	Grace F. Chamberlain . . . . .	700	
	*Ellen A. Sullivan . . . . .	550	
	Training Class . . . . .	6,814	
Primary . . . . .	Katharine E. Hayes . . . . . Agalena Aldrich . . . . . Elizabeth M. Crowley . . . . . Mary L. Dolan . . . . . Ella F. Gulliver . . . . . Julia S. Gushee . . . . . Mary E. G. Harrington . . . . . Katherine M. Lowell . . . . .	810 700 700 700 700 700 700 700	538

Library and Librarian.

## TABULAR VIEW—Continued.

Names of Schools		Teachers	Salaries	No. of Pupils Dec. 31, 1908
Willard, Continued . . . .		Mary A. O'Hara . . . . .	\$700	
		Annie M. Sands . . . . .	600	
		Eliza D. Watson . . . . .	700	
		Grace R. Woodward . . . . .	700	
Wyman, Primary . . . . .		Addie M. Bettinson . . . . .	780	204
		Maria J. Bacon . . . . .	700	
		Mary H. Brooks . . . . .	700	
		Georgianna P. Dutcher . . . . .	700	
		Genevieve S. Flint . . . . .	700	
Kinder- gartens	Boardman . . .	Florence Rice . . . . .	700	56
		Dorothea Cutler . . . . .	250	
	Corlett . . . .	Annie M. Dodd . . . . .	700	44
		Frances W. Roberts . . . . .	600	
	Gannett . . . .	Carrie E. Shepherd . . . . .	700	30
	Gore . . . . .	Selma E. Berthold . . . . .	700	51
		Annie L. Crane . . . . .	600	
	Houghton . . .	Edith L. Lesley . . . . .	700	68
		Olive M. Lesley . . . . .	600	
	Lowell . . . . .	Melinda Gates . . . . .	700	31
	Merrill . . . . .	Caroline A. Leighton . . . . .	700	66
		Ethel M. Halliday . . . . .	550	
	Parker . . . . .	Leonice S. Morse . . . . .	700	56
		Ida E. Ward . . . . .	600	
	Peabody . . . .	Julia L. Frame . . . . .	700	60
		Irene L. Phelps . . . . .	600	
	Shaw . . . . .	Harriette E. Ryan . . . . .	700	68
		Ivy M. Ranney . . . . .	450	
	Sleeper . . . . .	Mabel S. Adams . . . . .	700	60
		Lillian A. Scranton . . . . .	450	
Teachers of Sewing . . . .	Taylor . . . . .	Mary F. Leland . . . . .	700	64
		Anna D. Francis . . . . .	600	
	Wellington . . .	Gertrude M. Gove . . . . .	700	56
		Carita B. Dickson . . . . .	550	
	Willard, A.M. . .	Alice V. McIntire . . . . .	700	61
		Marion L. Akerman . . . . .	600	
	Willard, P.M. . .	Jennie S. Clough . . . . .	700	44
		Eva C. Katon . . . . .	600	
	Wyman . . . . .	Clara A. Hall . . . . .	700	52
		Mary E. Valpey . . . . .	550	
		Agnes Gordon . . . . .	700	
		Katharine A. Burke . . . . .	200	
		Nancy T. Dawe . . . . .	650	
		Alice H. Nay . . . . .	650	
Unassigned Teachers.				
High School . . . . .		Emma A. Scudder . . . . .	450	
Primary Schools . . . . .		Sally N. Chamberlain . . . . .	350	
		Ellen A. Cheney . . . . .	350	
		M. Elizabeth Evans . . . . .	350	
		Mary E. Sawyer . . . . .	350	
Permanent Substitute . . .		Mary A. Driscoll . . . . .	500	

## TABULAR VIEW—Concluded.

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CTOR OF MUSIC—Frederick E. Chapman . . . . .	\$2,000
TANT IN MUSIC—Annie R. Hooper . . . . .	850
CTOR OF DRAWING—Peter Roos . . . . .	2,000
STANT IN DRAWING—Lucia N. Jennison . . . . .	800
UCTOR IN PHYSICAL TRAINING IN THE HIGH SCHOOLS—Bessie W. Howard . . . . .	950

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INTENDENT—William C. Bates . . . . .	3,500
RVISOR OF PRIMARY SCHOOLS—Mary A. Lewis . . . . .	1,350
T—Sanford B. Hubbard . . . . .	2,450
KS—Constantine J. Church . . . . .	780
Althea B. Frost . . . . .	800
Sadie E. Kimball . . . . .	700
ER—John H. Lemon . . . . .	700
ANT OFFICERS—Lucian S. Cabot . . . . .	1,000
John Carmichael . . . . .	1,000
William H. Porter . . . . .	1,000
Thomas F. Riley . . . . .	1,000

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## SUMMARY

## DECEMBER, 1908

ber of pupils in the Latin School . . . . .	525
ber of pupils in the English High School . . . . .	582
ber of pupils in the Rindge Manual Training School . . . . .	554
ber of pupils in the Grammar Schools . . . . .	7,726
ber of pupils in the Primary Schools . . . . .	5,765
ber of pupils in the Kindergartens . . . . .	867
ber of pupils in the public schools, December, 1908 . . . . .	16,019
ber of pupils in the public schools, December, 1907 . . . . .	15,580
ase of pupils, 1908 . . . . .	439
ase of pupils, 1907 . . . . .	105
ase of pupils, 1906 . . . . .	111
ase of pupils, 1905 . . . . .	289
ase of pupils, 1904 . . . . .	140
ase of pupils, 1903 . . . . .	188
ase of pupils, 1902 . . . . .	253
ase of pupils, 1901 . . . . .	62
ase of pupils, 1900 . . . . .	332
ase of pupils, 1899 . . . . .	314
ase of pupils, 1898 . . . . .	476
age annual increase of pupils from 1898 to 1908 (inclusive) . . . . .	246



**COST OF INSTRUCTION**  
**FROM DECEMBER 1, 1907, TO DECEMBER 1, 1908.**

Schools and Officers	Cost of Instruction	Average Number of Pupils	Cost per Pupil
Latin School.....	\$26,476 42	506	\$52 72
English High School.....	27,898 75	584	47 73
Rindge Manual Training School.....	30,417 81	489	62 20
Training School (Teachers).....	14,354 27	734	19 56
Grammar Schools (except Training School)	140,534 24	6,810	20 64
Primary Schools (except Training School)..	86,851 06	5,392	16 11
Kindergartens.....	18,974 56	699	27 15
Directors of Music.....	2,672 00	.....	.....
Directors of Drawing.....	2,660 00	.....	.....
Director of Nature Study.....	700 00	.....	.....
Directors of Physical Training.....	1,567 00	.....	.....
Teachers of Sewing.....	2,050 00	.....	.....
Substitute Teachers.....	3,220 88	.....	.....
Unassigned Teachers.....	1,510 00	.....	.....
Superintendent.....	3,325 00	.....	.....
Supervisor of Primary Schools.....	1,282 00	.....	.....
Secretary and Agent.....	2,617 00	.....	.....
Page of Board.....	22 50	.....	.....
Clerks.....	1,425 00	.....	.....
Porter.....	665 00	.....	.....
Truant Officers.....	3,800 00	.....	.....
Estate of Harry Rich.....	87 50	.....	.....
Rindge Manual Training School, summer sessions for Harvard students.....	800 00	.....	.....
Tuition paid to Belmont for Cambridge pupils.....	90 00	.....	.....
Total.....	\$374,000 99	15,214	\$24 58

Cost of instruction in Evening Drawing Schools . . . . .	\$1,342 00
Cost of instruction in Evening Industrial School . . . . .	1,474 00
Cost of instruction in Evening High School . . . . .	1,839 00
Cost of instruction in Evening Elementary Schools . . . . .	7,980 00
Total . . . . .	*\$12,635 00

\*Including the amount to be refunded by the Commonwealth for the instruction in the Industrial Schools which are carried on under the direction of the Massachusetts Commission on Industrial Education.

## REMARKS ON THE STATISTICS

The number of pupils registered in the day schools during the school year ending June 26, 1908, was 17,135, an increase over the preceding year of 332; the average number belonging was 15,214, an increase of 257, and the average daily attendance was 14,144, an increase of 266. In the per cent of attendance there was an increase one-tenth of one per cent. The number belonging to the schools in December, 1907, was 15,580; in December, 1908, 16,019, an increase of 439.

The cost of instruction for the year December 1, 1907, to December 1, 1908, which includes the salaries of teachers, superintendent, supervisor, agent, secretary, clerks, and truant officers, was \$7,000.99. The total cost of the day schools, which, in accordance with the statutory definition of the support of schools, includes the cost of instruction, text-books and supplies, incidental expenses, care of truant children, care of schoolhouses, the cost of fuel and light, and the transportation of pupils, was \$477,286.82.

The total cost per pupil shows a decrease of \$1.30 from last year. Several factors have brought about this decrease in the cost per pupil. The average number belonging was 257 more than last year while the number of teachers employed was less during the last of the year. The salaries for September, October, and November, the last three months of the twelve from which the financial statements in this report are made, were paid in twelfths instead of in tenths as had been the custom heretofore, and so the payments for salaries were less than they would have been on the basis of tenths.

The registration in all the evening schools for the school year 1907-1908 was 2,977, an increase of 325; and the average attendance was 1,257, an increase of 160. These statistics include the attendance in the industrial schools which are carried on under the direction of the Massachusetts Commission on Industrial Education; the registration in these industrial schools was 715, and the average attendance was 324. The total cost of all the evening schools, including the salaries of teachers, the cost of text-books and supplies, the care of buildings, and the cost of fuel and light, was \$16,575.62. This includes the amount to be refunded by the Commonwealth in accordance with Chapter 505 of the Acts of 1906.

While Cambridge expends a large amount for the public schools, there are *two hundred eight* towns and cities in the State which make a larger expenditure in proportion to their wealth. In a list of the thirty-three cities, arranged numerically according to the percentage of their taxable property, appropriated to the support of public schools for the year 1907-1908, Cambridge is the *twenty-third*. In a list of the towns and cities of the State, arranged numerically according to the sum appropriated for each child in the average membership of the public schools, Cambridge is the *forty-seventh*.

These statistics relating to the schools of the State are taken from the seventy-second annual report of the secretary of the State Board of Education.

### TEXT-BOOKS AND SUPPLIES

At a meeting of the Board in December the committee on supplies submitted a detailed report of the expenditures of that committee for the year. The report is as follows:

In accordance with Section 30 of the Rules of the School Board, the committee on supplies submits its twenty-fourth annual report, it being for the year ending July 1, 1908:

Stock in storeroom July 1, 1907 . . . . .	\$6,672 79	
Expended from the appropriation . . . . .	22,607 29	
Value of exchanges . . . . .	366 34	
		<hr/>
Distributed to schools, officers, etc. . . . .	\$22,772 94	\$29,646 42
Books exchanged . . . . .	103 17	
Sold for cash . . . . .	260 73	
		<hr/>
		\$23,136 84
Stock on hand July 1, 1908 . . . . .		<hr/>
		\$6,509 58

The purchases and expenditures appear in detail as follows:

For text-books . . . . .	\$8,548 81	
Desk and reference books . . . . .	44 99	
Copy books . . . . .	482 40	
Apparatus and furnishings . . . . .	1,934 41	
Diplomas, \$226.96; printing, \$196.75 . . . . .	423 71	
Repairing books, \$474.90; tuning pianos, \$45.25 . . . . .	520 15	
Expressage and labor . . . . .	344 40	
Miscellaneous supplies . . . . .	10,674 76	
		<hr/>
		\$22,973 63
Less the value of exchanges . . . . .		366 34
		<hr/>
		\$22,607 29

The net cost of text-books and supplies is as follows:

Stock on hand July 1, 1907	\$6,672 79	
Bills paid by City Treasurer	22,607 29	
		\$29,280 08
Stock on hand July 1, 1908	\$6,509 58	
Cash paid to City Treasurer, sales and damages	816 94	
		\$7,326 52

We have, net cost of all schools and officers . . . . . \$21,953 56  
 at an average cost per pupil of \$1.443. The average  
 cost per pupil for twenty-four years is \$1.312.

The annual cost per pupil for text-books and supplies since the introduction of free text-books is as follows:

Year	Cost per Pupil	Year	Cost per Pupil	Year	Cost per Pupil
1885	\$1.880	1893	\$1.109	1901	\$1.203
1886	1.170	1894	1.243	1902	1.400
1887	1.051	1895	1.152	1903	1.306
1888	1.068	1896	1.436	1904	1.468
1889	0.960	1897	1.094	1905	1.434
1890	1.334	1898	1.268	1906	1.476
1891	1.248	1899	1.225	1907	1.620
1892	1.149	1900	1.740	1908	1.443

The net cost of each grade of schools for text-books and supplies is as follows:

	Net Expense	Cost per Pupil				
		1908	1907	1906	1905	1904
Latin School.....	\$1,188 47	\$2.349	\$4.136	\$3.036	\$3.182	\$3.177
English High School....	3,793 58	6.496	4.894	4.425	3.356	4.153
Manual Training School..	4,438 72	9.077	10.723	9.679	0.014	9.836
Training School, Teachers	974 60	1.328	1.127	1.126	0.964	1.042
Grammar Schools.....	3,476 18	1.128	1.315	1.343	1.258	1.397
Fixed Schools.....	4,821 45	0.835	1.156	0.981	1.153	1.342
Primary Schools.....	1,485 61	0.444	0.584	0.508	0.433	0.441
Kindergartens.....	406 61	0.582	0.353	0.494	0.637	0.422
Evening Schools.....	678 24					
Vocation Schools.....	14 38					
Special Teachers.....	88 23					
Officers of Board.....	102 55					
Miscellaneous Expenses (not chargeable to any grade).....	406 88					
Books exchanged and material discarded.....	103 17					
	\$21,978 67					
Less profit on sales.....	25 11					
	\$21,953 56	\$1.443	\$1.620	\$1.476	\$1.434	\$1.468

The foregoing table shows that the average cost per pupil, dividing the net expense among 15,214 pupils, the average number belonging during the school year, is \$1.443, a decrease from the average of last year of \$0.177. The average for the last twenty-four years is \$1.312. There was a decrease in the cost per pupil in all the schools and grades, excepting the English High School where sixteen typewriters were purchased, in the Wellington School where books and materials were supplied to replace what was burned in the fire of February 10, and in the kindergartens.

### SCHOOL ACCOMMODATIONS

Under the amendments to the city charter adopted December 10, 1907, the cost of maintenance of the school buildings is paid from the amount allotted to the school committee for school purposes. The erection of new buildings is determined by the city council subject to the approval of the school committee as to location and plans.

A new building should be erected to take the place of the Thorndike schoolhouse. At the meeting of the Board in December, 1908, the following was adopted and sent to the city council:

"The school committee would respectfully call the attention of the city council to the request made by this Board, January 31, 1907, and January 23, 1908, 'that the Thorndike schoolhouse be replaced by a modern building containing sixteen rooms and a hall,' and would respectfully urge this request.

"The Thorndike schoolhouse is antiquated and in bad repair; the heating and ventilation are costly and unsatisfactory. The rooms are too small to seat a full class of pupils, so that the maintenance of the school is in all respects unduly expensive; and it is unjust to the parents and pupils of this district that they are not supplied with accommodations as good as those furnished in other sections of the city."

At the meeting of the Board in December, the committee on schoolhouses submitted a detailed report of the work of the committee for the year. The following is taken from that report:

This committee would respectfully report that while no new schoolhouse has been built during the year, quite extensive repairs have been made on a large number of buildings, so that they are in a better condition than is usual.

The cost of repairs, lighting, heating, and janitors' service for the year December 1, 1907, to December 1, 1908, is as follows:

Salaries of janitors and others . . . . .	\$43,961 16
Janitors' supplies and various expenses . . . . .	2,313 88
Expended for coal, wood, and charcoal . . . . .	29,793 49
Expended for gas and electric lighting . . . . .	3,387 41
Cost of repairs to buildings, furniture, etc. . . . .	26,796 55
Cost of new furniture . . . . .	2,087 61
	<hr/>
	\$108,340 10

The Wellington School building was very seriously damaged by fire on February 10, 1908, so that the school was broken up and the pupils and teachers were scattered to various halls and rooms, some of them being compelled to go a considerable distance. The new part of the building, only recently completed, was saved and is occupied by a portion of the school. It was decided to build an addition of fifteen rooms in place of the damaged end, and \$85,000 was appropriated by the city council for this purpose. The building will be completed and equipped by September 1, 1909.

The schools in Wards Six and Seven are very much crowded and a new schoolhouse is needed in this section of the city. Perhaps the best and least expensive way to meet this need is to enlarge the Webster School building by an addition of ten or twelve rooms.

In order to relieve the crowded condition of the English High School the lecture room has been occupied for instruction in type-writing. Two rooms in the Latin School have been fitted up and are occupied by classes from the English High School.

An additional clerk has been employed in the office of the agent of the school committee to keep the accounts of schoolhouse maintenance, supervise the weighing of coal, and to do such other work as may be required of him.

### CHANGES IN TEXT-BOOKS

The following is the Rule of the School Board relating to the changes in text-books:

"All propositions for changes in text-books shall be made by the superintendent. Whenever he recommends a change he shall appoint two persons, one of whom shall be a teacher in the service of the city, who shall make written reports on the merits of the books recommended. These reports and a like report by the superintendent shall be kept on file in the office of the superintendent, open to inspection by members of the Board only. All changes of text-books recommended to the Board shall be referred to the committee on text-books."

Under this rule the following books have been recommended by the superintendent and the committee on text-books, and adopted by the Board:

FOR THE LATIN SCHOOL. Byron's *Mazeppa* and the *Prisoner of Chillon*; Chaucer's *Prologue and Knight's Tale*; Dickens's *A Tale of Two Cities*; Palgrave's *The Golden Treasury*, Books II., III., IV.; Scott's *Quentin Durward*; Spenser's *The Faerie Queene*, Book I.; Thackeray's *Henry Esmond*.

FOR THE RINDGE MANUAL TRAINING SCHOOL. Asensi's *Victoria and Other Stories (A Spanish Reader)*; Collar's *First Year German*; Hills and Ford's *A Spanish Grammar*.

FOR THE HIGH SCHOOLS. *Autobiography of Franklin*; Butcher and Lang's *The Odyssey of Homer Done into English Prose*; Huntington's *Four Place Tables of Logarithms*; Lamb's *The Essays of Elia*; Williams and Fisher's *Elements of the Theory and Practice of Cookery*; Woolley's *Handbook of Composition*.

FOR THE GRAMMAR SCHOOLS. Southworth's *Problems in Arithmetic*.

FOR THE PRIMARY SCHOOLS. The *Aldine System of Reading*, except the *Third Reader*, in place of Davis's *Second Reader* and Nash's *First Reader*.

The following is from the report of the committee on text-books:

It may be interesting to note one or two things in connection with the text-books adopted during the year.

Eighteen different books were adopted. Eleven of these were among the college requirements. Three were the first text-books in the course. Three were supplementary books put in to meet changed conditions. One was adopted in place of a book which had been some time in use and which was discontinued.

Last year's report shows that the amount spent on text-books was \$12,138.05. This year the report will show \$8,548.81 expended, a decrease of \$3,589.24, nearly thirty per cent. On these figures it can hardly be said that the text-book expenditures have been extravagant.

## LATIN SCHOOL

The following table shows the membership of the Latin School and the cost of instruction from year to year for the past five years:

Year	Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for the year ending in June	Cost of Instruction	Cost per Pupil	Number of Graduates
1904	23	548	487	\$26,275 50	\$53 95	50
1905	24	556	531	26,711 51	50 30	70
1906	25	523	530	25,979 34	49 02	59
1907	25	517	489	26,923 42	55 06	57
1908	23	525	506	26,476 42	52 72	62

The course of study for the Latin School is arranged for five years or for four years, and is almost wholly decided by the requirements or admission to Harvard University. Nine and four-tenths per cent of all the graduates have completed the course in four years. The following are the rules relating to the government of the three high schools:

"A pupil who has received a diploma of a Cambridge grammar school stating that he has satisfactorily completed the course may be admitted to any high school on probation without examination. Other candidates shall be required to present certificates of good character from the principals of the schools they last attended and to pass an examination showing a preparation equivalent to that required for graduation from the Cambridge grammar schools; such examination shall be held in September of each year under the direction of the superintendent. Pupils who are qualified to join existing classes may be admitted at any time on application to the head master.

"A pupil in any of the high schools who, during the first three months of the school year has failed to do the work required and who has shown a lack of reasonable effort to reach a satisfactory standard, may, on recommendation of the head master, be placed on special probation by the superintendent and if at the end of February he has not made his record satisfactory, he may, on recommendation of the head master and superintendent, approved by a vote of the committee on high schools, be required to withdraw from the school. A pupil so excluded shall not be readmitted until the beginning of the next school year. A second exclusion shall be final.

"No organization of high school pupils bearing the name of the school, shall be permitted to give musical entertainments or dramatic performances in places other than Cambridge.



"No pupil whose conduct or work in school is unsatisfactory shall be allowed to take part in any public match, performance, or exhibition, or in the editorship or business management of the school paper, under the name of any Cambridge high school or of any class thereof."

For non-resident pupils the tuition is \$80 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A.M., and end at 1.30 P.M.

### ENGLISH HIGH SCHOOL

The following table shows the membership of the English High School and the cost of instruction from year to year for the past five years:

Year	Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for the year ending in June	Cost of Instruction	Cost per Pupil	Number of Graduates
1904	24	569	556	\$27,070 83	\$48 69	76
1905	24	588	550	26,359 41	47 93	75
1906	25	634	570	27,214 24	47 74	74
1907	26	608	594	28,213 67	47 50	119
1908	*27	582	584	27,898 75	47 73	74

\*Twenty-six regular teachers and one consulting teacher.

On account of the small number of boys in the school, the English High School became a girls' school on September 17, 1908, the boys then in the school being transferred to the Latin School or Rindge Manual Training School as each boy might elect.

This school has three courses of study and has for its object the preparation of its pupils for entrance upon active life.

The general course provides a broad, liberal training for girls who expect to end their academic education with the high school, and includes all subjects which are required for preparation to enter the State normal schools. All who propose to become teachers in grammar or primary schools should take this course.

The commercial course is designed to combine with studies which cultivate the mind in a broad way, certain others which give special power needed in business life. Bookkeeping and business correspondence are provided in the first year, advanced bookkeeping in the second year, commercial law in the third year, stenography in the third and fourth years, and typewriting in the second, third, and fourth years.

The domestic science course is intended for those girls who, while gaining culture of mind, wish also to train the hand in arts that are needed constantly in the home. In the second year they work in wood with tools suitable to their strength. In the third year they learn cooking by theory and practice. In the fourth year they continue their cooking, and deal with the preserving of fruits, with sanitation, and with other problems of household economy.

The requirements for admission and the rules governing the English High School are the same as for the Latin School.

For non-resident pupils the tuition is \$80 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A.M., and end at 1.30 P.M.

#### RINDGE MANUAL TRAINING SCHOOL

The following table shows the membership of the Rindge Manual Training School and the cost of instruction from year to year for the past five years:

Year	Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for the year ending in June	Cost of Instruction	Cost per Pupil	Number of Graduates
1904	19	411	315	\$23,167 16	\$73 55	30
1905	22	459	396	26,487 00	66 89	32
1906	22	438	440	29,705 66	67 51	45
1907	25	508	428	30,038 93	70 18	33
1908	24	554	489	30,417 81	62 20	51

The Rindge Manual Training School has three courses of study, an industrial course, a college course, and a commercial course, each course covering four years. Proper emphasis is given to the academic features and the work is made interesting and effective by bringing it into intimate relation with instruction in the mechanic arts.

The manual dexterity and the thorough knowledge of tools, machinery, and mechanical processes acquired in the shops at an age when time can be most easily spared for such training is of great value in any scientific pursuit.

The sessions are five and one-half hours a day, instead of five as in the other high schools. About one-fifth of the time is given to the work of manual training, and the remainder to the subjects usually taught in high schools, with the exception of Latin and Greek.

The requirements for admission and the rules governing the Rindge Manual Training School are the same as for the Latin School.

For non-resident pupils the tuition is \$150 a year, payable one-half at the beginning, and the other half at the middle of the school year. The sessions of the school begin at 8.30 A.M. and end at 2 P.M.

The following is from the report of the committee on high schools:

There have been marked changes in the courses of study in the Rindge Manual Training School. In place of the general course we now have the industrial course, which gives those boys who select it more shop work in the last two years in order that they may be better fitted to enter their chosen trade on leaving the school. The modified courses which were put into effect in the English High and Rindge Manual Training schools three years ago have been further introduced, and the wisdom of those changes is being confirmed by the results. It has been the aim of the committee, with the assistance of the superintendent and the head masters of the high schools, so to arrange the courses of study for those boys and girls whose education either from necessity or preference terminates before or at graduation that they may be better fitted for their life work. The primary idea of this committee in arranging the courses of study in the English High and Rindge Manual Training schools has been to make them thoroughly practical, and at the same time to combine with this purpose the culture value of high school training. The college courses in our high schools have to remain much the same from year to year in order to meet the requirements of the colleges.

The number of pupils registered in the high schools since the opening of the term in September has been one thousand seven hundred eighty-one, fifty more than last year. The cost of instruction in these schools for the ensuing year will be approximately five thousand dollars less than last year. This is due principally to two causes. There are fewer teachers in the high schools, and teachers at lower salaries took the places of those who resigned.

In June one woman and two men resigned from the Latin School. At the opening of the school in September one man at a salary of \$1,200 was added to the teaching force, making four men, besides the head master, and eighteen women in the corps at present. Miss Jennie S. Spring has been appointed head assistant and is doing the senior work in Latin in a manner that is satisfactory to all. The number of pupils entering the school in September was about the same as last year, but not since 1890 have the boys in the entering class exceeded the girls in number. The present entering class has regis-

red seventeen more boys than girls. Five boys in the school are receiving the benefits of Hopkins scholarships for 1908-1909. The Hopkins prizes were awarded in the senior class of 1908 to Hugh Mason for the boys and to Marguerite Sands Wood for the girls. The class of 1908 made a gift to the school of a large plaster cast of Mercury.

The most prominent event in the history of the English High School for the year was the resignation of the head master, Mr. Ray Greene Huling, at the regular meeting of the Board in June. The Board placed on record at that time the following which was unanimously adopted:

"The school board at this time desires to place on record its deep regret at the resignation of Mr. Ray Greene Huling as head master of the English High School on account of his failing health.

"We wish to express our high appreciation of his able and efficient work during the past fifteen years as administrator and counsellor. His influence has been felt in the city beyond the school. His scholarship, his intelligent methods, his gentleness of spirit and gentlemanly bearing, his pleasant relations with pupils and teachers, and, above all, his character, have enabled him to exert an influence in the school, and, through his pupils, an influence in the community that cannot be over-estimated.

"RESOLVED, That the above be entered on the records of the school committee and that a copy be sent to Mr. Huling."

Miss Grace L. Deering, head assistant in the school, was nominated and confirmed as acting head master for the ensuing year or until a head master should be elected.

Another important change was brought about in this school at the Board meeting in September by the adoption of an order that hereafter boys be not admitted to the English High School, and that boys then in the school be transferred to the Latin or Rindge Manual Training schools, as they might elect. This change was made necessary by the gradual disappearance of the boys from the school. In September there were but thirteen boys, only four of whom were in the entering class. There has, however, been a registration of six hundred thirty-one girls since September, which is a larger registration than that of any previous year. About seventy per cent of the entering class, as in the previous two years, have selected the commercial course. This course cannot be efficiently and economically carried on until suitable equipment is provided. The crowded condition of the school has been somewhat relieved the present year by putting

two classes in unoccupied rooms of the Latin School building, and removing the typewriters from the cloak room and corridor into the physics lecture room. Now that the English High School is a girls' school, the object and aim of the school should be to give young girls who have graduated from our grammar schools an opportunity to obtain the best possible training mentally, morally, and physically; to fit them to fill the high position of presiding over a home intelligently, gracefully, and economically; or to fit them for teaching, one of the noblest of professions; or to fit them to earn a livelihood in business lines. These objects can only be accomplished by keeping up a high standard of administrative and educational work in the school, and by continuing to employ a well-trained and experienced corps of teachers.

The past year has witnessed some substantial additions to the equipment of the Rindge Manual Training School. There has been a considerable increase in the number of pupils enrolled, five hundred ninety-five having been registered since the opening of the school in September. As there has been a decrease of one in the teaching force, the average number of pupils to a teacher is materially higher than ever before. This committee desires to call the attention of the Board to the fact that the cost of instruction under the support of Mr. Rindge in 1898 was \$85.57 per pupil, and in the following year of 1899 under the support of the city it was \$80.38, and that it has been gradually decreasing so that the cost of instruction last year was approximately sixty-two dollars per pupil while for the ensuing year the cost per pupil will probably be considerably less. These figures do not include the income from the tuition pupils of whom there are at present about thirty. The city will receive from tuition for these pupils over four thousand dollars.

The cost of text-books and supplies in the school last year was \$9.07 per pupil, \$1.65 less per pupil than for the previous year, and lower than the cost of any year since the school has been supported by the city. Notwithstanding the decrease in the cost of instruction and in supplies it does not appear that there has been any loss of efficiency, as the discipline is excellent and the number of boys doing creditable work is constantly increasing.

The new office equipment has benefited the commercial course and has tended to economy in the teaching force. All of the work in bookkeeping and office practice is now done in one large room with a capacity of eighty-two pupils in charge of two teachers. The room is furnished with thirty-two double tables for elementary book-

ing and twelve offices where actual business is carried on between boys of the different classes. The furniture is made of beautifully quartered oak, and the room presents an appearance of which the school and the city may be proud. The value of the equipment facilitating the work of the commercial branches and in arousing the interest and enthusiasm of the boys is apparent. The changes in the course of study have produced broader and more practical commercial education. Every subject is taught in such a way as to bring out its relation to commerce. Because of this fact each subject contributes not only to general culture, but to the preparation of thoroughly trained mechanics and salesmen.

The additions to the equipment of the mechanical department have been made necessary by the rapid growth of the school. The crowded condition of the machine shop mentioned in last year's report became so serious that relief had to be afforded. A new shop is now being equipped, and much of the work of installation and machinery is being done by the boys outside of school hours. The new shop will provide bench room and machines for twenty-five boys.

This will make possible a separation of the two classes previously combined in one shop, so that chipping, filing, fitting, and machine work may be given to the boys of the junior class and more advanced work, which involves the use of engine lathes, will be left until the senior year. The new course of study affects the mechanical department perhaps more fundamentally than it does either in that the whole spirit of instruction for boys who do not enter either the college or the commercial course is changed. By increasing the amount of time which may be devoted to mechanical subjects and by allowing specialization in some one branch, the character of the course becomes industrial training. It is interesting to note that this change brings the work of the school back to the lines followed by the founder of the school in 1888. The objects of the school as stated at that time were outlined in the following paragraph: 'Boys should be admitted upon graduating from grammar schools provided that they could pass the required physical standard and at the end of a three years' course be so far advanced that they should be competent to enter any shop as wood or metal workers at wages of \$1.25 to \$2 per day and by faithful work have their pay increased to that of a first-class mechanic; or if they wished, pupils should be fitted by a similar course for the Institute of Technology.' The effect of the change in the course of study has already made itself felt. As in the case of the commercial course the definite object

in all of the work arouses ambition and interest.

The school buildings have been made more attractive during the year by fresh paint and kalsomining and by various gifts to the school. The alumni association presented to the school a very satisfactory portrait of Mr. Frederick H. Rindge, painted by Mr. Charles H. Richert, a teacher in the school.

The senior class contributed four beautiful stained glass windows for the assembly hall; the sophomores, two quartered oak bulletin boards with wrought iron trimmings; and the freshmen, green velvet hangings for the assembly hall. A large framed picture of St. Gaudens' statue of Lincoln was presented to the school by Miss Minnie Drew.

One fact which deserves attention is the great number of changes which have taken place in the teaching force of the school. Since September, 1907, there have been eighteen changes of teachers in a corps which totals only twenty-four. The reason for the change is in nearly every case an offer of increased salary in some other school. If this great number of changes is to continue, it seems imperative that the grade of master similar to that in the Latin and English High schools should be established in the Rindge Manual Training School, and we should pay teachers of proved ability salary enough to insure their retention in the school. Otherwise the continuity and efficiency of the work in the school can be maintained only with great difficulty.

The need which prompted recommendations in the reports of the past two years that an adequate electrical equipment be obtained becomes more and more pressing. This equipment is not only needed for the day school, but it could also be used to satisfy the rapidly increasing demand for instruction in electricity in the Evening Industrial School.

There seem to be many reasons why an effort should be made to bring our high schools and the community more closely in touch. As matters are now arranged, all Cambridge boys who are trying to fit themselves for vocations by a high school training are in the Rindge Manual Training School. This school has assumed the responsibility of fitting boys for definite commercial and industrial lines of work, and this, if well done, will greatly increase the earning power of the boys. Since this kind of school work directly affects the business men of the community, it ought not to be difficult to get some public-spirited men who live in Cambridge to form an advisory committee for the purpose of offering suggestions in regard to the practical results of the training that the boys receive.

## MANUAL TRAINING IN OTHER SCHOOLS

The statutes require that every town and city of twenty thousand or more inhabitants shall maintain, as part of both its elementary and its high school course, the teaching of manual training. The Rindge Manual Training School gives the required instruction to boys of the high school grade, and provision is made in the English High School for girls of this grade, dressmaking and sloyd being taught in the second year, and cooking in the third. Sewing in the grammar schools may be considered as meeting the requirements for the girls of the grammar school grades.

The following is from the report of the instructor in manual training:

The course of study provides that boys of the eighth grade shall have one hour a week for manual training. In accordance with this, eight classes in the five following schools are now taking up this work—the Fletcher, Kelley, Putnam, Roberts, and Wellington.

The manual training room at the Roberts School is used by classes from the Fletcher, Kelley, Roberts, and Wellington schools, each class having a whole afternoon session once every two weeks.

In the limited time allowed, a small amount of elementary work only can be accomplished, as there has been no previous training. The course at present consists of a few simple, useful models; the aim being to teach thoroughly a very few of the principal operations of wood-work, at the same time developing individual initiative.

Cambridge is doing all she can with her present limited equipment. There is, however, a large field in the lower grades where cardboard work, weaving, or some other simple form of manual training can be carried on by the grade teachers, who are capable of teaching this work under the direction of the instructor in manual training. Work of this nature is welcomed by practically all elementary school teachers and the expense for equipment is low.

## WELLINGTON TRAINING SCHOOL

This school was opened in September, 1884, and differs from the other schools in this respect—all the grades, except the eighth and ninth, are taught by young teachers. Their work, however, is done under the immediate supervision of a master and three assistants, who are held responsible for the instruction and management of the school. For several years the seventh grade has been taught by a graduate of the training class.



The object of conducting a school on this plan is to give Cambridge young women who desire to teach, and who have made special preparation for the work, an opportunity to gain experience under conditions favorable to their own success, and without prejudice to the interest of their pupils.

Graduates of the English High School or of the Latin School, who have also graduated from one of our State normal schools, are preferred candidates for the position of teacher in this school. Other persons of equal preparation may be appointed.

The required term of service is one year. Teachers are appointed on probation, and may be excused or dismissed at any time by the superintendent, with the approval of the committee on the training school.

No teacher is considered a graduate of the school until by vote of the training school committee she is admitted to the graduate class, which is known as Class B.

The money compensation for the first three months, and until satisfactory service is rendered, is at the rate of \$200 a year. For the remaining part of the year it is at the rate of \$250.

Graduates temporarily employed as teachers in this school are paid at the rate of \$300 a year. Graduates selected to act as substitutes in any school are paid at the rate of \$450.

That the direct influence of the school may be continued, it is the duty of the master, or one of the supervising teachers, occasionally to visit the schools of the graduates who are teaching in Cambridge. The school contains all the grades of the grammar and primary schools and a kindergarten.

By the Rules of the School Board the superintendent is authorized to employ as many substitutes and temporary teachers as may be necessary to take the places of absent teachers. These teachers are usually assigned to the Wellington School, when not otherwise employed, that there may be at this school a sufficient number of teachers to make it practicable for the members of the training class to visit other schools.

The following is from the report of the committee on the Wellington School:

Another year of successful work has been completed by the Wellington School, the Cambridge training school for teachers. On February 10, 1908, the work was interrupted by a fire which injured nine rooms in the oldest part of the building. This made it necessary to send the third, fourth, and fifth grades to the Felton and

lerrill schools, and the kindergarten to the Kelley School, for such length of time as is required to repair damages. The city decided that the best way to repair the damages was to replace the old building by a new one, and make it larger by six rooms. There is now in process of erection an addition of fifteen rooms, which will make when completed a school building containing twenty-five modern, well lighted, properly heated, and thoroughly ventilated school-rooms. This will make the Wellington schoolhouse the largest grammar school building in the city, and one that is built so as to be nearly fireproof.

Between September, 1907, and September, 1908, fifteen young women were admitted to the probation class. Of this number, fourteen accomplished the required work and graduated from the school; one withdrew. Seven of these graduates are employed by the city; six are employed in the Wellington School, and one has gone to Brookline to teach. There are no unemployed graduates.

Housed in its new building next September, the Wellington School hopes to celebrate its twenty-fifth anniversary and receive thereby encouragement to launch out into another quarter century of earnest educational work.

### GRAMMAR SCHOOLS

The number of pupils in these schools in December was seven thousand seven hundred twenty-six, and the number of teachers, including the masters and special teachers, was two hundred.

The cost of instruction for each pupil for the year from December 1, 1907, to December 1, 1908, was \$20.64. This does not include the cost of supervision or the cost of the Wellington School.

For non-resident pupils the tuition is \$30 a year, payable one-half at the beginning, and the other half at the middle of the school year.

The course of study is for six years, but the schools are so classified as to give the pupils an opportunity to complete the course in four years, or in five years. The average age of those who entered the grammar schools last September was nine years eight months. The number of graduates in June was seven hundred fifty-three, their average age being fourteen years nine months. Of these, 7 per cent completed the course in four years, 24 per cent in five years, 52 per cent in six years, and 17 per cent in seven years or more.

Pupils are promoted by classes from the primary schools at the beginning of the autumn term; but individual pupils may be pro-

moted at other times, if it is deemed expedient by the supervisor of primary schools and the superintendent.

Promotions from grade to grade in the grammar schools, and from the grammar to the high schools, are made by the teachers under the direction of the masters and the superintendent. Pupils qualified to join existing classes may be admitted at any time on application to the master of the school. No regular preannounced examinations are held in these schools, but the results of such written exercises and reviews as the teachers and masters may require from time to time may be used as a part of the basis of promotion.

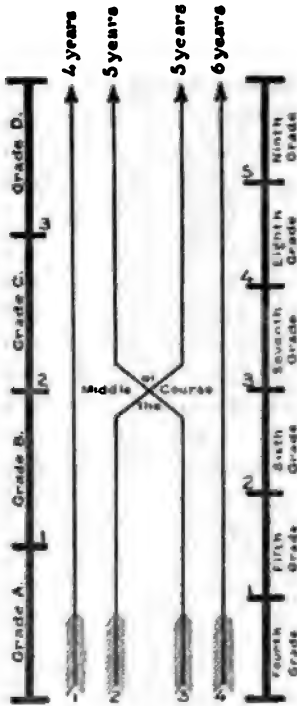
The thoroughness with which the work is done in the grammar schools is shown in part by the ability of the pupils to do the work in the high schools. The pupils are admitted to the high schools on trial, and a pupil in any of the high schools who, during the first three months of the school year has failed to do the work required and who has shown a lack of reasonable effort to reach a satisfactory standard, may, on recommendation of the head master, be placed on special probation by the superintendent, and if at the end of February he has not made his record satisfactory, he may, on recommendation of the head master and superintendent, approved by a vote of the committee on high schools, be required to withdraw from the school. A pupil so excluded shall not be readmitted until the beginning of the next school year. A second exclusion shall be final.

In the grammar schools, special teachers are appointed to help such pupils as seem able to do the work in less than six years, and to aid those who without personal instruction would require more than six years. This action of the committee removes the most serious objection to the graded system of schools.

The course of study is divided in two ways: (1) into six sections; (2) into four sections; each section covering a year's work. Pupils taking the course in six years are classified in six grades, called the fourth, fifth, sixth, seventh, eighth, and ninth grades. Those taking it in four years are classified in four grades, called grades A, B, C, and D. When pupils are promoted to the grammar schools they begin the first year's work together. After two or three months they are separated into two divisions.

One division advances more rapidly than the other, and during the year completes one-fourth of the whole course of study. The other division completes one-sixth of the course.

During the second year the pupils in grade B are in the same room with the sixth grade. At the beginning of the year they are five months (one-half the school year) behind those in the sixth grade. After two or three months grade B is able to recite with the sixth grade, and at the end of the year both divisions have completed one-half the course of study—the one in two years, and the other in three years. The plan for the last half of the course is the same as for the first half, the grades being known as the seventh, eighth, and ninth, in the one case, and as C and D in the other.



There are also two ways of completing the course in five years: (1) any pupil who has completed one-half the course in two years may, at the end of that time, be transferred to the seventh grade, and finish the course in three years; (2) any pupil who has completed one-half the course in three years may, at the end of that time, be transferred to grade C, and finish the course in two years. In both cases these changes can be made without omitting or repeating any part of the course.

It is now seventeen years since the schools were first classified on this plan. During this time ten thousand two hundred three pupils have graduated from the grammar schools. Of this number, 7 per cent completed the course in four years, 28 per cent in five years, 50 per cent in six years, and 15 per cent in seven or more years.

Of the number who entered the Latin School from the Cambridge grammar schools during the past fourteen years and remained a year, 15.6 per cent did the work in the grammar schools in four years, 43.0 per cent in five years, 38.6 per cent in six years, and 2.8 per cent in seven or more years. Of those who entered the English High School

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Arrow No. 1 indicates the four years' course; grades A, B, C, D. Arrow No. 2 indicates one of the five years' courses; grades A, B, 7, 8, 9. Arrow No. 3 indicates the other five years' course; grades 4, 5, 6, C, D. Arrow No. 4 indicates the six years' course; grades 4, 5, 6, 7, 8, 9.

from the Cambridge grammar schools and took the general course and remained a year, 7.9 per cent did the work in the grammar schools in four years, 35.0 per cent in five years, 46.5 per cent in six years, and 10.6 per cent in seven or more years; of those who took the commercial course, 8.1 per cent did the work in the grammar schools in four years, 31.7 per cent in five years, 50.0 per cent in six years, and 10.2 per cent in seven or more years. Of those who entered the Rindge Manual Training School from the Cambridge grammar schools and remained a year, 4.6 per cent did the work in the grammar schools in four years, 31.2 per cent in five years, 52.3 per cent in six years, and 11.9 per cent in seven years or more.

During the past fourteen years more than 45 per cent of the pupils entering the high schools from the Cambridge grammar schools did the work in the grammar schools in less than six years, 35.7 per cent doing it in five years, and 9.5 per cent in four years.

It does not follow, however, that because so many did the work in less than the full time that the plan is a good one. Its value is shown, rather, by the thoroughness with which the work has been done, not in one year only, but in a series of years. The results of the first year's work in the high schools would seem to be a test of this thoroughness. The records in these schools show that for fourteen years the marks of the pupils who were four years in the grammar schools were higher than were the marks of those who were five years in the grammar schools; and that the marks of those who were five years in the grammar schools were higher than were the marks of those who were six years in the grammar schools.

The average per cents of the first year's work in the different high schools for fourteen years are as follows:

In the Latin School, the average per cent of the pupils who completed their grammar school course in four years is 79.4; of those who completed it in five years, 75.4; of those who completed it in six years, 72.3.

In the general course in the English High School, the average per cent of the pupils who completed their grammar school course in four years is 77.9; of those who completed it in five years, 75.6; of those who completed it in six years, 72.6.

In the commercial course in the English High School, the average per cent of the pupils who completed their grammar school course in four years is 73.8; of those who completed it in five years, 72.6; of those who completed it in six years, 70.2.

the Rindge Manual Training School, the average per cent of pupils who completed their grammar school course in four years of those who completed it in five years, 69.1; of those who completed it in six years, 68.3.

The following tables will be of interest as showing the results of this year's work in the high schools of the fourteen classes from 1908 inclusive:

## IN THE LATIN SCHOOL

OF FOURTEEN CURRENT CLASSES	FOUR YEARS IN GRAMMAR SCHOOLS	FIVE YEARS IN GRAMMAR SCHOOLS	SIX YEARS IN GRAMMAR SCHOOLS
Year in High Schools	Average per cents in High Schools	Average per cents in High Schools	Average per cents in High Schools
1895.....	78.7	78.9	76.4
1896.....	80.4	77.0	71.6
1897.....	79.3	72.5	66.9
1898.....	77.1	72.3	67.8
1899.....	80.0	73.0	61.8
1900.....	81.1	75.9	75.4
1901.....	79.6	75.2	70.1
1902.....	81.0	77.5	74.7
1903.....	83.0	79.1	74.7
1904.....	81.0	76.6	75.9
1905.....	78.2	77.8	73.5
1906.....	79.0	70.6	70.1
1907.....	78.1	74.4	74.5
1908.....	76.7	76.2	73.1

## IN THE ENGLISH HIGH SCHOOL, GENERAL COURSE

1895.....	77.3	76.2	73.4
1896.....	85.9	75.1	76.4
1897.....	79.7	78.7	72.2
1898.....	77.6	75.8	77.0
1899.....	75.6	75.1	69.1
1900.....	79.2	73.4	71.1
1901.....	72.8	75.2	73.2
1902.....	82.2	75.3	74.3
1903.....	86.6	77.0	72.7
1904.....	75.3	76.6	75.4
1905.....	76.7	75.3	74.0
1906.....	78.1	74.6	70.3
1907.....	70.3	73.4	68.0
1908.....	73.5	74.5	71.5

## IN THE ENGLISH HIGH SCHOOL, COMMERCIAL COURSE

RECORD OF FOURTEEN DIFFERENT CLASSES	FOUR YEARS IN GRAMMAR SCHOOLS	FIVE YEARS IN GRAMMAR SCHOOLS	SIX YEARS IN GRAMMAR SCHOOLS
First Year in High Schools	Average per cents in High Schools	Average per cents in High Schools	Average per cents in High Schools
Class of 1895.....	73.7	73.5	69.8
Class of 1896.....	74.8	70.9	68.4
Class of 1897.....	76.3	69.0	69.3
Class of 1898.....	75.7	73.8	69.5
Class of 1899.....	69.5	68.5	68.9
Class of 1900.....	69.2	73.6	72.5
Class of 1901.....	76.0	73.6	70.5
Class of 1902.....	74.9	75.5	73.3
Class of 1903.....	74.3	76.6	70.9
Class of 1904.....	72.7	73.1	69.6
Class of 1905.....	75.7	74.1	69.8
Class of 1906.....	68.7	70.9	70.1
Class of 1907.....	81.0	72.6	70.9
Class of 1908.....	73.6	72.6	68.0

## IN THE RINDGE MANUAL TRAINING SCHOOL

Class of 1895.....	72.6	65.4	65.9
Class of 1896.....	79.3	63.5	65.2
Class of 1897.....	78.6	67.2	61.7
Class of 1898.....	81.7	69.5	68.9
Class of 1899.....	.....	67.5	67.8
Class of 1900.....	72.6	69.6	68.0
Class of 1901.....	80.0	67.8	68.4
Class of 1902.....	80.4	71.9	69.2
Class of 1903.....	70.4	73.5	70.3
Class of 1904.....	76.2	71.6	68.7
Class of 1905.....	64.8	68.7	68.7
Class of 1906.....	53.2	66.3	66.3
Class of 1907.....	75.9	70.7	71.5
Class of 1908.....	71.3	69.6	68.5

The results already given are based on the first year's work in the high schools. For eight years results have been obtained based on the full course in the high schools. During these eight years, for hundred sixty-five pupils have graduated from the Latin School. Of these four hundred sixty-five, three hundred sixty-seven were graduates of the Cambridge grammar schools. Of these three hundred sixty-seven, seventy-two did the work in the grammar schools in four years, and their average per cent for the Latin School course was 80.8; one hundred eighty-nine did the work in the grammar schools in five years, and their average per cent for the Latin School course was 76.2; one hundred one did the work in the grammar school

in six years, and their average per cent for the Latin School course was 74.9; five did the work in the grammar schools in seven years, and their average per cent for the Latin School course was 71.9.

During the eight years six hundred thirty-six pupils have graduated from the English High School. Of these six hundred thirty-six, five hundred thirty-three were graduates of the Cambridge schools. Of these five hundred thirty-three, forty-seven did the work in the grammar schools in four years, and their average per cent for the high school course was 76.6; two hundred two did the work in the grammar schools in five years, and their average per cent for the high school course was 76.1; two hundred forty-five did the work in the grammar schools in six years, and their average per cent for the high school course was 74.4; thirty-nine did the work in the grammar schools in seven years, and their average per cent for the high school course was 72.9.

### PRIMARY SCHOOLS

The number of pupils in these schools in December was five thousand seven hundred sixty-five, and the number of teachers was one hundred forty-one.

The cost of instruction for each pupil from December 1, 1907, to December 1, 1908, was \$16.11. This does not include the cost of supervision or the cost of the Wellington School.

For non-resident pupils the tuition is \$20 a year, payable one-half at the beginning, and the other half at the middle of the school year.

The course of study is for three years. Children five years old are admitted to the first grade at the beginning of the school year and during the first week in March. Pupils qualified to join existing classes may be admitted at any time on application to the principal. At the present time 38.9 per cent are in the first grade, 30.9 per cent in the second, and 30.2 per cent in the third.

One thousand five hundred forty-three pupils were promoted to the grammar schools in June, at an average age of nine years six months. Of these, 5 per cent completed the course of study in less than three years; 64 per cent in three years; 3 per cent in three and half years; and 28 per cent in four years or more.

Promotions from grade to grade in the primary schools, and from the primary to the grammar schools, are made by the primary teachers, under the direction of the supervisor of primary schools and the superintendent. Promotions by classes are made annually at the beginning of the autumn term; but individual promotions are made at other times if it is deemed expedient by the supervisor of primary schools and the superintendent.



Pupils are promoted to the grammar schools on trial, and those who show by their work that they are unprepared are returned to the primary schools on the approval of the supervisor of primary schools and the superintendent.

Once a month the teachers of each primary grade meet the directors of special studies and the supervisor of primary schools. These meetings are held in the English High School building on Wednesday afternoons, half an hour after the close of the schools. The work for the coming month is planned; criticisms and suggestions in regard to the methods are made; and questions from the teachers are answered and discussed.

Occasionally specimens of written work from all the pupils are brought for examination. In this way the amount of work done in the schools is made somewhat uniform; new teachers are kept informed as to the requirements, and pupils lose less time when a change of teacher or school becomes necessary.

The supervisor of primary schools writes as follows:

The three ungraded classes established by the superintendent in the Boardman, Gore, and Taylor districts have proved their usefulness, and the desirability of adding to the number of these classes in other parts of the city is increasingly evident. In most districts a single class could receive all the special pupils of two or three neighboring buildings.

During the year 1907-08 the ungraded classes numbered ninety different pupils between eleven and fifteen years of age. Of these, fifty-eight were born in countries in the southern and eastern parts of Europe. Many of them had no knowledge of reading and writing in any language, while some of them had only to learn to translate into English what they already knew. This they did with remarkable facility when given individual instruction. They can gain very little from class exercises. Of the ninety pupils, nine obtained certificates to go to work and fourteen were promoted to the fourth grade during the year. The grammar principals received them whenever they were offered. Forty-two were promoted at the regular time in June. The others moved away or remained to finish the work this year.

Had these pupils remained in the primary grade they would have proved a serious embarrassment to the classes to which they belonged and they would have felt out of place and dissatisfied. Placed in rooms by themselves they were happy, at ease, and ambitious to learn as fast as possible. This ambition was fostered by their

parents who urged them to fill the requirements of the school law regard to reading and writing.

Cordial relations between the pupils of the ungraded classes and their teachers were very noticeable and gratifying. Boys who under other conditions might have proved troublesome were cheerful, loyal, and responsive. The present classes have nearly the same conditions as those of last year, but the number who do not speak English has increased. Four pupils have already been promoted to the fourth grade and four others have obtained certificates to go to work.

During the past year the reading in all the grades has gained an impetus from the interest the teachers and children have taken in reproducing orally and dramatizing the folk stories found in the different readers. Much is expected from the new system of reading which the teachers have been studying with interest.

The children have become accustomed to the new system of writing and are making good progress in it. The increase in the number of adjustable desks has been very helpful.

In conclusion I wish to bear witness to the enthusiasm with which the teachers have responded to all demands made upon them; to express my appreciation of the helpfulness of suggestions and encouragement given by the superintendent; and to acknowledge the many courtesies received at the hands of the school board as well as the warm interest they have always manifested in the welfare of the teachers and pupils.

### KINDERGARTENS.

The number of pupils in the sixteen kindergartens in December was eight hundred sixty-seven, an increase of eighty-seven over last year, and the number of teachers was thirty, a decrease of one.

The cost of instruction for each pupil from December 1, 1907, to December 1, 1908, was \$27.15. This does not include the cost of supervision.

To be eligible to a position in a kindergarten, a teacher must have had a course in a high school, a course in a kindergarten normal school, a year's experience in teaching either in a kindergarten or a primary school, and must be able to play the piano.

Students in kindergarten normal classes are given opportunities to observe during their two years' course, and are allowed one month's experience in the first primary grade, but it is not deemed expedient for them to observe after graduation.

Teachers in kindergartens are to use their afternoons in visiting the homes of their pupils, with a view of maintaining friendly relations with the parents and of securing regularity of attendance, except when the time is needed for preparation for their work, and they are to make reports on blanks prepared for this purpose.

The following is from the report of the committee on kindergartens:

The number of visits made by the kindergarten teachers to the homes of the children during the year was four thousand two hundred forty-six. The number of mothers' meetings was one hundred thirty-seven.

A remarkable series of meetings was held in the spring in the interest of the kindergartens. The proposal to give up the kindergartens was discussed, as it appeared that the funds would not be sufficient to continue all the departments upon the same basis as in the past. These meetings were held in all parts of the city, and were attended by large numbers of people interested in the schools.

The good will of the people toward the kindergartens was shown in many ways. Parents whose children had received the benefit of kindergarten training were practically unanimous in desiring to have these schools continued. The workers in the societies whose aim is social betterment testified that the work of the kindergartens is closely allied to many of the movements for social uplift.

The meetings made it clear that the kindergartens are greatly valued by the people who have been served by them, that their work is appreciated, that their methods are accepted as natural and proper in elementary education, and that they have an important place in social service.

In September the Gannett Kindergarten was changed to a single kindergarten and the assistant, Miss Marion L. Akerman, was transferred to the morning session of the Willard Kindergarten to fill a vacancy caused by the transfer of Miss Lucy E. Whipple to primary work. The Gannett Kindergarten now numbers thirty-one and is in an excellent condition.

Another feature noticed is the growing interest of the kindergarten observers in primary work. Three of last year's observers are now studying primary methods in the Wellington School. The present observers are showing an enthusiasm and an ability to make themselves useful in the time given them for primary observation. The gap between the kindergarten and the first grade is disappearing

th better understanding and more interest on the part of teachers both grades.

One kindergartner reports the following list of meetings: October: reservation of the health. December: Christmas festival. February: Care of the teeth. April: A Pilgrimage to Lourdes. May: an afternoon with the children at regular work.

She then adds this explanatory note: "These meetings have been held in connection with the whole school, the primary teachers and mothers joining with us and thus bringing a closer relation and insuring a larger attendance and an interest that includes all in the district."

When the new room is finished for the Wellington Kindergarten which now meets in the afternoon in the room of the Shaw Kindergarten at the Kelley School, and when a suitable place is provided for the kindergarten that now meets in the afternoon at the Willard School, the accommodations for these schools will be ample.

### SPECIAL STUDIES

The committee on special studies has supervision of the instruction in nature study, drawing, music, sewing, and physical and industrial training in the grammar and primary schools.

### NATURE STUDY

The work in nature study includes the study of plant and animal life with some study of minerals and of weather phenomena.

The study of plants was first undertaken, and still makes up the larger part of the work. The study of animal life consists mainly of lessons on insects and birds. The work with minerals is confined to lessons on common metals and on building stones.

Plants are studied in grades one to four, inclusive; insects in grades one, two, and four; birds in grade four; weather phenomena in grades one to three, inclusive; and minerals in grade four.

Specimens chosen for study are those in which the pupils have a present interest, and all work is based on present experience. It is kept well within the capabilities of the children, yet novel enough to require their best effort. Whenever it is possible, the nature study is made to correlate with the work in other branches.

The results sought are increasing knowledge of facts gathered by observation; familiarity with environment; and a growing sympathy with nature.

The work in nature study is conducted by the regular teachers.

## DRAWING

The course in drawing and art study has for its aim the development of artistic skill and the appreciation of beauty in nature and in art. A detailed outline of the course, in the form of neostyle copies, is furnished to the teachers in the primary and grammar schools.

The plan of the course consists of several series of progressive lessons and problems in form, designing, and color.

In the study of form the most important of the series of lessons are the following: Drawing of type forms, drawing from common household objects, toys and tools; exterior views of buildings in the pupil's own neighborhood; drawing leaves, flowers, fruit, vegetables, shells, and insects from nature; working drawings of objects and tools; plans of rooms in the pupil's own home, etc. The more advanced problems are worked out, some in light and shade effects, and others in color.

The study of form is not confined to existing forms, but obtains a strong impetus in the field of inventive drawing. Efforts for original forms of useful objects and of units for the decoration of surfaces and objects; composition of landscapes; plans of gardens and home surroundings; illustrative drawings; letterings and monograms; these constitute the more important problems in designing.

The study of color consists of a series of lessons upon scales, brush sketches, and harmony.

The time given to drawing is sixty minutes per week in the first four grades, and eighty minutes per week in grades five to nine inclusive. This time is divided into two lesson periods.

In the English High School drawing is a required study in the first year and may be taken as an extra study after the first year. The plan of instruction includes studies from objects, casts, sprays of leaves, flowers, fruit, and landscapes worked out in pencil, charcoal, or color; drawing to scale, designing, and color harmony.

In the English High School the instruction in drawing is given by the director and his assistant. In the Rindge Manual Training School there are three teachers of drawing and the work is done under their immediate instruction. In the grammar and primary grades instruction in drawing is given by the teachers under the supervision of the director and his assistant.

For many years the director of drawing has given courses of illustrated lessons to the teachers at which the attendance is voluntary. The object of these lessons is to make the teachers thoroughly

miliar with the art they are about to teach to the children. The meetings are held in the English High School building after the close of the afternoon session.

### MUSIC

The New Educational Music Course is used by the regular teachers in the primary and grammar grades under the supervision of the director of music and his assistant. In the high schools the music is conducted by the director. Every pupil who is capable of learning music is required to give attention to the subject.

In the Latin, English High, and Rindge Manual Training schools fifteen minutes a week are given to the study of musical form and expression as found in choruses, quartettes, etc., from the standard operas and operas.

Elementary harmony, counterpoint, and composition have been introduced as elective studies for the first and second classes, and boys as well as girls having a special aptitude for music naturally elect these studies, the only requisite being some knowledge of the piano-forte. Pupils of the fourth year in the English High School may elect harmony in place of astronomy, and those intending to go to a normal school are advised to take the course in harmony.

The students are instructed in scale formation, intervals, and logical and comparative view of all true chords, in order to give them the power to construct and resolve these chords for themselves.

The study of harmony is carried well into modulation, and the study of counterpoint is carried through the four simple orders or species, including both the major and minor modes.

Two periods of fifty minutes each week are devoted to instruction and occasionally the best compositions of the students are sung or played before the entire school, showing in this way the practical side of the work, which will prove an important factor in future teaching.

In the Rindge Manual Training School the young men are taught to sustain their parts, without accompaniment, in compositions of four part harmony (first tenor, second tenor, first bass, and second bass), the music being selected and arranged for this purpose.

Fifteen minutes a day in the primary and grammar grades are devoted to this study; and pupils in the grammar grades are taught to sing and sustain their parts in reading compositions in two, three, and four parts.

Memorizing music is a feature in all the grades, including the high schools, and in all graduating exercises it is expected that the

music by the pupils will be sung or played without notes. To this end rote singing in all the schools forms a part of the instruction in reading music.

This feature of the work in music is emphasized. Pupils are drilled upon words and music until both are thoroughly learned. When a song has been learned in this way it is added to the list of the "songs we know." This list is kept on the blackboard in sight of the pupils, and they have pleasure in adding to the record of their musical possessions.

On the afternoon of Thursday, the twenty-first of May, the pupils of the seventh grade had a musical festival in Sanders Theatre. Under the leadership of Mr. Frederick E. Chapman, the director of music, the children sang without instrumental accompaniment and without referring to their music books. The festival was of special interest as showing the quality of the regular work in music.

#### PROGRAM

OMNIPRESENCE.	Peter Ritter
WHERE WOULD I BE.	Karl Zöllner
STARS OF THE SUMMER NIGHT.	I. B. Woodbury
LAST NIGHT.	Halfdan Kjerulf
THE FOUR SEASONS.	Haydn
FLING WIDE THE DOOR.	Ciro Pinsuti
TO THEE, O COUNTRY.	Julius Eichberg
MY ROSE.	Luigi Caracciolo
THE OLD SABER.	Jacques Offenbach
DIXIE.	Dan Emmett
LIFT THINE EYES.	Mendelssohn
HYMN TO OUR COUNTRY.	German Folk Tune
AT PARTING.	Harvey Worthington Loomis
ABIDE WITH ME.	William H. Monk

#### SEWING

Sewing is taught to the girls of the three lower grades in the grammar schools by three teachers who give full time to the subject, and by one teacher who gives three-tenths time. The boys in the fourth grade who desire the instruction are given lessons in sewing by the regular teachers.

#### PHYSICAL TRAINING

The Ling system of physical training is used in the schools. Daily in the grammar grades ten minutes are allowed and in the primary grades fifteen minutes. During the months of September, October, November, April, May, and June, the primary classes have

the privilege of outdoor recesses, while during December, January, February, and March the time is spent in games and marching.

The essential aim of all the teaching in physical training is to make the period one of recreation and healthful exercise, thus counteracting in part the tendency to spinal curvature and flat chest caused so often by sitting so many hours a day at the school desk.

### EVENING SCHOOLS

The following account of the evening schools is given by Mr. Sanford B. Hubbard, the agent of the school committee, who had general supervision of these schools during the winter of 1907-1908:

There are eight evening schools,—one industrial school, two drawing schools, one high school, and four elementary schools. In accordance with the Rules of the School Board, there are two terms of the evening schools. The first term begins on the second Monday of October and continues every Monday, Wednesday, and Friday evening until the end of the week before Christmas. The second term begins on the first Monday, Wednesday, or Friday evening after the opening of the day schools in January, and continues thirty-five evenings. The sessions begin at half past seven o'clock and continue two hours. No session is held on the evening of a holiday, or during the vacations of the day schools.

The Evening Industrial School, the two drawing schools, and the classes in dressmaking and millinery in the elementary schools have been carried on under the direction of the Massachusetts Commission on Industrial Education from October 14, 1907, to March 20, 1908, and the school committee has managed them for the Commission.

The Evening Industrial School is held at the Rindge Manual Training School building, and offers courses in machine shop work, wood-turning, pattern-making, forging, and foundry work. The head master of the Rindge Manual Training School is principal of the school.

The Mechanical Drawing School occupies three rooms in the Washington building and is also under the charge of the head master of the Rindge Manual Training School. This school provides two courses in drawing,—a three years' course in machine drawing, and a three years' course in architectural drawing.

The Free-hand Drawing School occupies one room in the English High School building and is under the supervision of the director of drawing for the day schools. This school offers a three years'



course in free-hand drawing which includes drawing from a life model. Diplomas are given to graduates of both drawing schools.

The Evening High School is held in the English High School building and offers a three years' course of instruction in the following subjects: Commercial arithmetic, bookkeeping, algebra, geometry, stenography and typewriting, English composition, English literature, civics, history, Latin, French, and German. Diplomas are given to graduates of the three years' course.

The evening elementary schools occupy rooms in four of the grammar school buildings, the Putnam, Roberts, Shepard, and Webster. Reading, writing, arithmetic, geography, language, history, and bookkeeping are taught in these schools in classes, so far as classification is possible, but a large part of the work is individual. No definite course is arranged, but an opportunity is offered to pupils to prepare to enter the Evening High School, and certificates are given to those who are qualified to begin work in that school. In addition to the subjects given above, classes in civil service, sewing, dressmaking, millinery, wood-working, and mechanical drawing are formed when a sufficient number express an intention to take any one of these courses.

The following table shows the attendance at the evening schools for the year 1907-1908, including the attendance at the industrial schools and at the industrial classes in the elementary schools:

	Number Registered	Average Attendance	Average No. of Teachers*	Average No. of Pupils to a Teacher	Number of Graduates
Industrial School. . . . .	93	57	4	14	3
Mechanical Drawing..	78	47	4	12	5
Free-hand Drawing..	64	30	2	15	6
High School.....	389	185	11	17	26
Putnam School.....	873	360	24	15	25
Roberts School.....	992	360	23	16	38
Shepard School.....	194	108	9	12	12
Webster School.....	294	110	8	14	13
Total.....	2,977	1,257	85	15	128

\*The principals and curators are not included in these averages.

The following table shows the attendance at the industrial schools and at the industrial classes in the elementary schools which were carried on under the direction of the Massachusetts Commission on Industrial Education:

	Number Registered	Average Attendance
Industrial School.....	93	57
Mechanical Drawing School.....	78	47
Free-hand Drawing School.....	64	30
Putnam School.....	161	64
Roberts School.....	173	61
Shepard School.....	88	48
Webster School.....	58	17
Total.....	715	324

The following table shows the cost of the evening schools for the year 1907-1908, including the cost of the industrial schools and of the industrial classes in the elementary schools:

	Cost of Instruction	Net Cost of Text-books and Supplies	Cost of Light, Fuel, and Janitors	Total Cost	Cost per Pupil
Industrial School....	\$1,474 00	\$288 09	\$751 46	\$2,513 55	\$44 09
Mechanical Drawing..	869 00	23 69	212 22	1,104 91	23 51
Free-hand Drawing..	473 00	39 83	52 78	565 61	18 85
High School.....	1,839 00	90 42	580 65	2,510 07	13 56
Putnam School.....	2,804 00	58 49	577 23	3,439 72	9 55
Roberts School.....	2,733 00	162 22	639 91	3,535 13	9 82
Shepard School.....	1,262 50	11 59	194 72	1,468 81	13 60
Webster School.....	1,180 50	3 91	253 41	1,437 82	13 07
Total.....	\$12,635 00	\$678 24	\$3,262 38	\$16,575 62	\$13 18

The total cost of the industrial schools and of the industrial classes in the elementary schools from October, 1907, to March 20, 1908, was \$5,717.52, and the city has filed a claim for the reimbursement of one-half of this amount in accordance with Chapter 15 of the Acts of 1906.

### VACATION SCHOOLS

The vacation schools opened on Monday, July 6, in six school buildings, the Rindge Manual Training, the English High, the Putnam, Roberts, Shepard, and Webster, and continued for five weeks.

There were two sessions of two hours each for five days each week, one division attending the first two hours and another the last two. Pupils from all grammar grades in the city were allowed to attend, and one thousand one hundred forty-two cards of admission were issued from the office. These cards were given in order that the pupils might know which school they were to attend and that the work might begin without loss of time. After the first day any grammar school pupil was allowed to enter any division where there was room.

One thousand three hundred sixty-eight pupils were registered, and the average attendance was nine hundred seven, an increase of one hundred five over last year. This was the largest average attendance the vacation schools have ever had, and the interest continued until the close of the schools in spite of the very hot weather. Five teachers of sloyd were employed, two of basketry, two of cooking, seven of sewing, and eight in the work with the younger pupils. After the first week a teacher of singing was employed, who made as frequent visits to the schools as time would permit.

Music thus became an important part of the program in the summer schools. The technical study of music was not attempted, but many songs were learned by rote. The pupils became thoroughly familiar with the words and the tunes, and so the joy of singing was added to the other privileges of the vacation schools.

The older pupils were given a choice between two hours of sloyd and two hours of basketry, cooking, or sewing. The drawing in connection with the sloyd was omitted this year and the teachers all agreed that the boys worked harder and were much happier in the two hours of sloyd than they were when they had one hour of sloyd and one of drawing. The work showed much improvement both in quantity and in quality. The boys appreciated the privilege of having more time in which to work with tools. The instructors used the longer periods in such ways that a more finely finished product resulted. As the boys were encouraged to do better work, and were given more time in which to do it, the attendance was regular and the enthusiasm continued throughout the term.

The younger pupils were given lessons in water color painting, reading, writing, and in many varied kinds of work that were helpful and interesting. The teachers of these younger pupils had a number of meetings to talk over the best methods of holding the pupils in the schools until the close of the term, and of keeping them happy and busy in a way that would make them like the summer schools and also make the summer schools profitable to them.

The following table shows the number in attendance at each school and the line of work in each:

SCHOOL	Subject	Number Registered	Average Attendance
Indge Manual Training School...	Sloyd.....	91	44
English High School.....	Academic.....	78	44
	Basketry.....	110	67
	Cooking.....	58	41
	Sewing.....	59	32
	Sloyd.....	68	50
Putnam School.....	Academic.....	70	52
	Sewing.....	93	75
	Sloyd.....	42	34
Roberts School.....	Academic.....	168	109
	Sewing.....	83	43
	Sloyd.....	56	34
Shepard School.....	Academic.....	79	50
	Sewing.....	94	69
Webster School.....	Academic.....	128	83
	Sewing.....	91	80
Total.....		1,368	907

The following table shows the number registered in each subject with the average attendance:

	Number Registered	Average Attendance
Academic.....	523	338
Basketry.....	110	67
Cooking.....	58	41
Sewing.....	420	299
Sloyd.....	257	162
Total.....	1,368	907

The cost of the vacation schools was \$1,570.60 for salaries of teachers and janitors, and \$220.58 for supplies, a total of \$1,791.18, or of \$1.97 per pupil based on the average attendance. This is a decrease of \$0.41 per pupil from last year, owing in part to the increase in the average attendance and in part to omitting the drawing, as more teachers were required when the drawing was given in connection with the sloyd.

## SUMMER PLAYGROUNDS IN SCHOOL YARDS AND PUBLIC PARKS

The summer playgrounds in school yards and public parks, with their organized play and regular occupations, have been of the greatest benefit to hundreds of children in Cambridge. Such organized play and such regular occupations as are described in the special report which follows, may properly be considered "a part of the educational system and as highly essential in the development and protection of the children." Up to this time the summer playgrounds have been conducted by private enterprise. The city should now provide more playgrounds properly equipped, and should also provide equipment for the playgrounds already existing. The cities of the Commonwealth are awake to the importance of providing for a more wholesome out-of-door life for the children. Already twenty-three cities have voted favorably.

At a meeting of the school committee held January 21, 1909. the following order was adopted:

"The school committee requests the board of aldermen to have placed upon the ballot at the coming election, the Playground Referendum, as provided in Chapter 513 of the Acts of 1908." The act, approved May 12, 1908, is as follows:

SECTION 1. Every city and town in the Commonwealth having a population of more than ten thousand, accepting the provisions of this act shall, after the first day of July in the year nineteen hundred and ten, provide and maintain at least one public playground conveniently located and of suitable size and equipment, for the recreation and physical education of the minors of such city or town, and at least one other playground for every additional twenty thousand of its population.

SECT. 2. Cities and towns may appoint, and determine the compensation of, a qualified supervisor of each playground, who shall direct the sports and exercises thereon.

SECT. 3. In cities and towns where the provisions of this act are not already satisfied, land for the purpose aforesaid may be taken, and the money necessary to pay for such land may be raised in accordance with sections nineteen, twenty, and twenty-one of chapter twenty-eight of the Revised Laws; and any land owned by the city or town may be set aside by vote of the city council, or of the board of selectmen, for the purposes of this act.

SECT. 4. In cities and towns which have a population of more than ten thousand, and which have not already satisfied the

visions of this act, the following question shall be placed on the special ballot at the next city or town election:—Shall chapter five hundred thirteen of the acts of the year nineteen hundred and eight, requiring certain cities and towns to provide public playgrounds, be accepted by this (city or town)?

SECT. 5. This act shall take effect in any city or town to which it applies upon its acceptance by a majority of the voters voting as aforesaid.

Mrs. Helen L. Brooks, the secretary of the committee in charge of the summer playgrounds, has furnished the following at the request of the superintendent:

During the summer of 1908 twelve playgrounds were carried on in Cambridge by means of private subscription. Seven were the yards of school buildings,—the Gore, Lassell, Parker, Riverdale, Tarbell, and Taylor; one was at the site of the old Sargent School building, and five were in public parks,—at Broadway Park, Cambridge Field, two at Rindge Field, and one on the Front, a narrow strip of land bordering on the river. The city placed sandboxes in the playgrounds where the younger children played. These boxes are in constant use and are indispensable.

The playgrounds opened on July 6, with a temperature of ninety in the shade, but there was a large attendance in spite of the heat. Miss Ida L. Brooks again did exceptionally fine work as superintendent of the eight playgrounds for the younger boys and girls, and Mr. F. L. Candee organized the four playgrounds for the boys. There is a teacher in every playground and two travelling assistants went from yard to yard teaching industrial work.

The superintendents and teachers worked hard and with great intelligence. Many children who were enrolled at the playgrounds last year returned to do any work that was provided for them. The neighborhoods seemed to have considered the playgrounds an established fact.

There were two sessions a day, of two and a half hours each. The plan for the yards where the younger boys and girls were together, was to have industrial work first and devote the last half hour to games. It has been found in all these playgrounds that the children learn and are eager to learn to make something with their hands. As time goes on both teachers and children prefer to make useful things. The children learned to knit, sew, crochet, make dolls'

clothes and dolls' furniture, scrap-books, boxes, waste-paper boxes, flower-pot covers from wall paper, and to weave mats on little frames.

The last two occupations were new to them and proved very fascinating, especially to the boys. Dressing dolls and making dolls' furniture appealed most to the little girls. As an innovation this year the girls were taught the Gilbert American school dances. Miss Brooks taught these dances first to the children of the Parker district. They learned them very quickly and were able to teach them to the children in the other playgrounds. Thus these teachers and children visited other yards and saw what was going on outside of their own work.

In the last week there was an exhibition at the Parker School of the articles that had been made and of the dances that had been learned. This was stimulating to the children who wanted to do something really worth while, and was very helpful to the teachers. The idea had been that the same work had been going on in all the yards, and the teachers were surprised to learn that each yard was doing something different. They seemed to gain from the exhibition inspiration and new ideas. One teacher said it was a splendid opportunity to see how capable and ready to work these children were if they had material with which to work. In many cases the finishing of a piece of work proved more interesting than play.

Another new feature this year was the travelling libraries. Books carefully selected from the public library were given out in each yard and exchanged from yard to yard. This was a great incentive to keeping clean, as only children with clean hands and faces could have the books. The children were allowed to take them home for a couple of nights. The books were returned in good condition, only one being lost during the season, and they were a source of great pleasure to the children.

The attendance in the school yards is always good, but it is very large in the parks where there is so much more room and shade. Miss Mary Sheehan, in Rindge Field, had an average attendance of one hundred and fifty children and often over two hundred were present. More than half the children stayed until the close of each session and many brought their lunches and stayed all day.

The four playgrounds for boys, three of which were an extension of last year's work, kept five hundred boys between ten and fifteen years of age happily and actively playing morning and afternoon in Cambridge Field, Rindge Field, the Sargent School yard, and the Front. In these playgrounds baseball teams were formed and there were also track athletics. A league was formed called the Cambridge

Playground League; the nines had contests with each other and also with outside teams. Each teacher handled his boys as seemed best to him. One effort was, however, common to all the playgrounds,—to instill into the boys the spirit of fair play. Their standards of honor are now higher than they were a year ago, and their instructors have the feeling that many of them carried away in their hearts a warm feeling that there are many kind people in their own city who do not mean that they shall be cheated out of their birthright of wholesome play.

Twelve hundred children, at a conservative estimate, were taken care of daily in the playgrounds for a term of eight weeks at a cost of one dollar seventeen cents each for the season.

### THE PUBLIC LIBRARY AND THE SCHOOLS

The English High School has a library of about three thousand volumes. The Latin School has only about one-third of this number. Comparatively few books of a miscellaneous character have been added to these libraries for several years, the public library meeting the demand for such books. The need of the schools is for books of reference and for sets of books for class study. The library at the Latin School will in future receive accessions from the income of the Hopkins Classical Fund.

The librarian of the public library writes as follows of the ways in which the librarian and his associates unite with the teachers in efforts to make the public library of increasing service to the children:

The annual visit of the pupils of the ninth grammar grade to the public library came at the usual time in the spring of last year, and lasted about one month. In compliance with the request of the principals of the grammar schools, as expressed at a masters' meeting of last April, the annual visit for the present school year was changed from spring to fall, coming chiefly in October, and bringing the two visits within the time of one year. This change of time for the visits has been made in order that the instruction given to the pupils at the library may be enforced by practice in the schoolroom during the year, and it is all the more worthy of note because it shows the willingness of the principals to extend the work of co-operation between the schools and the library, even at the expense of extra time and attention on the part of the teachers. In return for this interest the librarian hopes to arrange, during the coming winter, to have given in the schoolrooms brief talks by the children's librarian, and later to include other grades of pupils besides the ninth



grade. Adequate co-operation between the schools and the public library cannot be realized until all the grammar grades of pupils have received the benefit of some special instruction in the care of books and in the use of a library.

The school delivery shows a steady, if not large, increase in circulation over that of last year, and the demand for books relating to Abraham Lincoln in connection with the celebration of the centenary of his birth, February 12, 1909, rivals that of the Longfellow centenary of two years ago this month.

A special list of books relating to Abraham Lincoln was issued for the teachers of this city with the February Bulletin.

### TRUANT OFFICERS

The city is divided into four districts and to each of these districts a truant officer is assigned. Among their duties are the following: To visit each school at least once a day, unless otherwise directed by the agent; to prevent children from loitering about the school premises; to notify the teachers of all cases of contagious and infectious diseases reported by the board of health; to attend the evening schools when so directed by the agent of the Board; to assist in the preservation of order, and to visit places of business where children are employed, to see that none are employed unlawfully. They make all complaints at the district court for truancy, absenteeism, or school offences, attend the trials as witnesses, and take boys to the Middlesex County Truant School when they are sentenced.

By the Rules of the School Board the work of the truant officers is done under the supervision of the committee on schoolhouses; and under the direction of this committee it is the duty of the agent of the Board to consider all cases of truancy, of persistent violation of the rules of the school, of juvenile vagrancy, of unlawful detention from school, of neglect by parents; and of any failure on the part of pupils or parents to comply with the Rules of the School Board or the public statutes relating to school attendance. It is also the duty of the agent to direct the officers to make complaints; to certify to the records in these cases when presented before the district court; and to exercise such supervision of the boys who are sent by the court from Cambridge to the truant school as may be allowed under the statutes.

The following is from the report of the committee on schoolhouses:

The truant officers, Messrs. Cabot, Carmichael, Porter, and

ve continued their usual faithful services. They have ad and reported on twelve thousand three hundred forty- of absence. Twenty-eight complaints for truancy or school were made to the court; fifteen boys were sentenced to school, and the rest were put on probation. At the present e are fifty-two boys from Cambridge at the truant school Chelmsford.

ruant officers have also visited two hundred seventy-five or mercantile establishments, and have supervised the the school census.

ensus shows that the total number of children in the city ive and fifteen years of age is sixteen thousand five hun- ty-four, an increase of four hundred eighty-four over last

ollowing is a summary of the school census for the year 1908:

children in the city between five and fifteen, boys, 8,245;	
19;	16,594
public schools between five and fifteen . . . . .	12,918
private schools between five and fifteen . . . . .	3,278
t attending school between five and seven . . . . .	151
t attending school between seven and fourteen . . . . .	57
t attending school between fourteen and fifteen . . . . .	190
ber not attending school between five and fifteen . . . . .	398
the city between five and six . . . . .	1,771

the city between seven and fourteen, boys, 5,801;	
4;	11,685

children in the city between fifteen and sixteen years of age 1,085

tistics of the private schools obtained by one of the officers

; there are ten private schools in the city, which receive

r tuition, and five parochial schools. The following is the

f pupils in these schools:

schools . . . . .	3,656
ools . . . . .	315
number not in public schools . . . . .	4,171

### CONTAGIOUS DISEASES

ollowing act relative to school physicians and to testing and hearing of pupils in the public schools, was passed by ture in 1906:

on 1. The school committee of every city and town in the ealth shall appoint one or more school physicians, shall to each public school within its city or town, and shall pro- with all proper facilities for the performance of their duties bed in this act; *provided, however*, that in cities wherein of health is already maintaining or shall hereafter main-

tain substantially such medical inspection as this act requires, the board of health shall appoint and assign the school physician.

SECT. 2. Every school physician shall make a prompt examination and diagnosis of all children referred to him as hereinafter provided, and such further examination of teachers, janitors, and school buildings as in his opinion the protection of the health of the pupils may require.

SECT. 3. The school committee shall cause to be referred to a school physician for examination and diagnosis every child returning to school without a certificate from the board of health after absence on account of illness or from unknown cause; and every child in the schools under its jurisdiction who shows signs of being in ill health or of suffering from infectious or contagious disease, unless he is at once excluded from school by the teacher, except that in the case of schools in remote and isolated situations the school committee may make such other arrangements as may best carry out the purposes of this act.

SECT. 4. The school committee shall cause notice of the disease or defects, if any, from which any child is found to be suffering, to be sent to his parent or guardian. Whenever a child shows symptoms of smallpox, scarlet fever, measles, chickenpox, tuberculosis, diphtheria or influenza, tonsilitis, whooping cough, mumps, scabies, or trachoma, he shall be sent home immediately, or as soon as safe and proper conveyance can be found, and the board of health shall at once be notified.

SECT. 5. The school committee of every city and town shall cause every child in the public schools to be separately and carefully tested and examined at least once in every school year to ascertain whether he is suffering from defective sight or hearing or from any other disability or defect tending to prevent his receiving the full benefit of his school work, or requiring a modification of the school work in order to prevent injury to the child or to secure the best educational results. The test of sight and hearing shall be made by teachers. The committee shall cause notice of any defect or disability requiring treatment to be sent to the parent or guardian of the child, and shall require a physical record of each child to be kept in such form as the state board of education shall prescribe.

SECT. 6. The state board of health shall prescribe the directions for tests of sight and hearing and the state board of education shall, after consultation with the state board of health, prescribe and furnish to school committees suitable rules of instruction, test-cards,

inks, record books, and other useful appliances for carrying out the purposes of this act, and shall provide for pupils in the normal schools instruction and practice in the best methods of testing the sight and hearing of children. The state board of education may expend during the year nineteen hundred and six a sum not greater than fifteen hundred dollars, and annually thereafter a sum not greater than five hundred dollars for the purpose of supplying the material required by this act.

SECT. 7. The expense which a city or town may incur, by virtue of the authority herein vested in the school committee or board of health, as the case may be, shall not exceed the amount appropriated for that purpose in cities by the city council and in towns by a town meeting. The appropriation shall precede any expenditure or any indebtedness which may be incurred under this act, and the sum appropriated shall be deemed a sufficient appropriation in the municipality where it is made. Such appropriation need not specify to what section of the act it shall apply, and may be voted as a total appropriation to be applied in carrying out the purposes of the act.

SECT. 8. This act shall take effect on the first day of September in the year nineteen hundred and six. [*Chapter 502, Acts of 1906.*]

In accordance with Sections 5 and 6 of the above act, the rules of instruction, test-cards and blanks, furnished by the secretary of the state board of education, were sent to the schools in October and the tests of sight and hearing were made in October and November. In order that there might be as much uniformity as possible in the testing, the work in the smaller buildings was assigned to one teacher and in the larger buildings to not more than two or three teachers.

Pupils in the kindergartens and in the first primary grade were not tested. The examinations revealed some cases of defective sight that were not suspected by the teachers, and also showed the seriousness of other cases and the need of immediate attention to them.

As required by the act, parents were notified if the eyesight of pupils was found defective. Many children have been provided with glasses and immediate improvement in work and in conduct has resulted. The examinations showed that twenty-three per cent of the pupils appeared to have some defect of vision.

Four per cent of the children above the first primary grade were found defective in hearing. The parents of these children were

notified, and in most cases they have taken the children to physicians for treatment.

The tests made in 1908 showed two per cent less pupils defective in eyesight than in 1907 and the same per cent defective in hearing.

Since 1894 the Cambridge board of health, in accordance with a request of the school committee, has appointed a physician, whose duty it is to examine all cases of contagious diseases reported, and to direct the exclusion from the schools of all pupils whose presence will, in his opinion, be a menace to the health of others. He reports his action on every case to the secretary of the school committee. This physician issues all certificates, authorizing such children to return to school, as provided by Chapter 502, Section 1, of the Acts of 1906.

As a further precaution against contagious diseases, the board of health established, February 26, 1896, a system of medical inspection in the schools. The city was divided into six districts, in each of which a physician was appointed to visit the schools in that district. The duties of these physicians as now defined are as follows:

1. The physician shall enter each room of the schools which are subject to his inspection during the morning of every school day.

He shall receive from the principal of the school a written statement signed by him which shall state the names and rooms of the pupils which the respective teachers desire to have examined. If there should be no pupils to be examined, he shall receive for each school day a written statement from the principal, stating the fact. He shall examine such children as are indicated to him by the teacher as having complained of, or appear to be suffering from disease. He shall enter such rooms, and inspect such other children or parts of the building as he deems wise, examining at least one school each day; being careful always not to disturb the work of the school more than is necessary, in order to learn the condition of the school and the health of the pupils.

2. The physician is to recommend to the principal to send home immediately any child whom he may suspect of having any infectious disease.

3. The physician must not recommend the employment of any special physician or mode of treatment for the particular case, except in pediculosis and tinea, when he shall recommend the treatment by giving the pupil one of the cards provided.

4. In cases of nearsightedness or other trouble with the eyes, or deafness, or other ear trouble to which attention has been directed by the teacher, the physician is instructed to suggest that the principal recommend to the parents that the eyes or ears of the pupils be examined.

5. The physician shall on the first of each month send to the office of the board of health the statements or cards which he has received and to which he shall add such comments as he thinks will be of value to the board of health.

The principal of each school is required to read the following at the beginning of each term in all the rooms under his charge:

"Any teacher or pupil who visits any apartment in which a person has been sick within two weeks, or which has been exposed within that time to contagion of smallpox, varioloid, diphtheria, or scarlet fever, shall not be allowed to attend school until the expiration of two weeks after such visit."

From December 1, 1907, to December 1, 1908, the truant officers received notice through the office of the school committee and reported to the several schools the following number of contagious diseases:

Diphtheria	. . . . .	406
Scarlet Fever	. . . . .	446
Measles	. . . . .	1,142
Cerebro-spinal Meningitis	. . . . .	8

### THE WORK OF THE SCHOOL NURSE

The work of the school nurse merits recognition in this report. At the beginning, her time was spent for the most part in the schools in the eastern section of the city; but this year her duties have been extended and all the schools in the city have been visited.

Through co-operation with the school nurse many agencies unite in protecting the health of the community.

The nurse has helped parents, teachers, school inspectors, the Anti-Tuberculosis Association, and the Associated Charities in the fight against disease.

In her visits to the schools she has helped the teachers to discover the first indications of disease, and in her calls at the homes she has shown the parents how to follow up effectively the directions of the school inspector; she has also taken many children to hospitals for treatment.

She has given talks on cleanliness in many of the grades; and she has warned pupils against the cigarette habit. She has called the attention of the teachers and school authorities to rooms in

which the seating arrangements need improvement and to room which need better lighting. She has taken note of the care the buildings receive and has encouraged better housekeeping.

Included in her work for a single month were fifty-nine home calls in the district to which she was particularly assigned, and seventeen in other sections. She followed up eighteen cases of defective vision which had been neglected after report of them had been sent to the home. Twelve of the cases were placed under treatment in one week and the others received attention the following week. She gave a special talk on hygiene to the pupils in the eighth and ninth grades in one of the schools.

Writing of the good condition in a building which she had inspected, she attributed it not to her own efforts, but "to the untiring personal interest of the master and his staff of teachers."

In this spirit the work of the school nurse is done. She works under the direction of the board of health and she is paid from its appropriation. Her aptitude is shown by such services as are here indicated, services acceptable alike to the board of health and to the school committee.

To quote her own words, "The system is one of prevention, not of cure, and as the weeks progress it is gratifying to note the increasing interest taken by parents and guardians in the physical welfare of their children."

The first school nurse in Cambridge began her work in November 1907. The usefulness of this service has been so apparent to many people that provision has been made through private subscription for a second nurse beginning in February, 1909.

### TERMS, HOLIDAYS, AND SCHOOL HOURS

The school year is divided into three terms,—the autumn, the winter, and the spring term.

The time for beginning the autumn and spring terms, and for closing the winter and spring terms, is fixed annually at the regular meeting of the committee in February. The autumn term ends December 23. The winter term begins on the first school day after that celebrated as New Year's Day.

The holidays are Saturdays; Thanksgiving Day, with the preceding day and the day following; the twenty-second of February; Good Friday; the nineteenth of April; Memorial Day; the seventeenth of June; and in addition to these, for the high schools Commencement Day at Harvard University.

The sessions of the high schools begin at 8.30 A.M., and end at 1.30 P.M. The sessions of the Rindge Manual Training School begin at 8.30 A.M., and end at 2 P.M. These schools have a recess half an hour in each session.

With the exception of the Russell School, the morning sessions of the grammar and primary schools begin at 9 and end at 11.45. The afternoon sessions begin at 1.30 and end at 3.30. The grammar schools have no outdoor recess. In the primary schools the principal may, at her discretion, substitute an outdoor recess for the period devoted to physical training. The sessions at the Russell School begin at 8.30 A.M., and end at 1.30 P.M.

The sessions of the kindergartens are from 9 A.M. to 11.50 A.M.

There are two terms of the evening schools. The first term begins on the second Monday of October, and continues every Monday, Wednesday, and Friday evening, until the end of the week before Christmas. The second term begins on the first Monday, Wednesday, and Friday evening after the opening of the day schools in January, and continues thirty-five evenings. Vacations and holidays are the same as in the day schools. The sessions begin at 7.30 P.M., and continue until 9.30 P.M.



## TEACHERS

In December there were four hundred fifty-nine teachers in the Cambridge schools, including five unassigned teachers and one consulting teacher. Thirty-four new teachers have been nominated; three, nominated to temporary positions last year, have been given permanent positions; seven have been promoted to either temporary or permanent positions; thirty-seven have resigned; three have been given leave of absence for rest or for some special reason, and two have died. For the first time since the rule was adopted no teacher is on leave of absence in accordance with Section 69 of the Rules of the School Board, which allows a teacher a year's leave of absence after ten years of service.

Four teachers were put on the unassigned list in June, 1905, and one in June, 1908, in accordance with the following rules:

"The superintendent shall prepare and submit to the Board annually in June, a list of teachers recommended by him for re-election.

"On this list he shall designate teachers who have taught in the Cambridge schools for twenty-five years or more and who have attained the age of sixty-five years, whose election he recommends to serve in an assistant, temporary, or substitute capacity, at a salary of three hundred fifty dollars in grammar and primary schools, and of four hundred fifty dollars in high schools."

Among the teachers who resigned were thirteen from the high schools, an unusually large number to leave these schools. Most of the teachers who resigned were called to better positions with larger salaries in other places.

In June, Mr. Ray Greene Huling, head master of the English High School, resigned on account of failing health. Mr. Huling came to Cambridge in September, 1893, and served the city as head master for fifteen years. The resolutions adopted at the time of Mr. Huling's resignation appear in the report of the committee on high schools.

Miss Grace L. Deering, a teacher in the school since 1892, and head assistant since 1896, was made acting head master from September, 1908.

Mr. Thomas W. Davis, master of the Harvard School, was given leave of absence from September, 1908, to January, 1909, to become Recording Grand Secretary in the Grand Lodge of the Masonic body

which office he had been temporarily appointed. He resigned from his position as master of the Harvard School December 31, 1908, after having been duly elected to the office which he had been occupying by appointment, and at the meeting of the Board in that month following was adopted by a unanimous rising vote:

"In accepting the resignation of Mr. Thomas W. Davis, late master of the Harvard Grammar School, this Board desires to recognize the efficient services of Mr. Davis through his twenty-seven years' connection with our schools; first with the Putnam and later with the Harvard.

"Mr. Davis has exhibited much ability in his work, winning, by a kind manner, the respect of his pupils and the hearty, earnest support of his associates. He has ever had the confidence of the school officials, who now extend to him their best wishes for his prosperity in his new and honorable position of Recording Grand Secretary in the Grand Lodge of the Masonic Order to which he has recently been elected."

Mr. Davis was appointed master of the Putnam School in 1881, and was transferred to the Harvard School, September 1, 1901.

Miss Gertrude M. Simpson, assistant in the Shaw Kindergarten, died April 20, 1908. Miss Simpson was an enthusiastic kindergarten teacher, had great love for little children. Her devotion to her work made her service sweet and efficient.

Mr. Harry E. Rich, a teacher in the Rindge Manual Training School, died October 16, 1908. Mr. Rich was one who had endeared himself to teachers and pupils in the Rindge Manual Training School, by his fine personality and by his devotion to the school and its interests. Again in 1908, as he did in the year before, without expectation of financial reward, he spent the month of July with the head master, arranging the work for the fall term. The case of each pupil who required special attention was considered and provision made for him. So, during a considerable part of the vacation, the head master and Mr. Rich worked together in order that there might be no delay for any pupil at the opening of the fall term; in the work of the fall term Mr. Rich was not able to take part. He died respected and loved by all with whom he had worked.

### QUALIFICATIONS OF TEACHERS

A person to be eligible to the position of teacher in a kindergarten must have had a course in a high school, a course in a kindergarten-normal school, a year's experience in teaching either in a kindergarten or a primary school, and must be able to play the piano; to be

eligible to a position in a primary or grammar school, a teacher must have had a course in a high school, a course in a normal school, and a year's experience in teaching; to be eligible to a position in a high school, except in the manual training department of the manual training school, a teacher must be a college graduate. Equivalent preparation may be accepted. Preparation for the work of teaching as shown by years of study, and experience as shown by years of teaching, may be considered in fixing the salaries of teachers at the time of their nomination.

Two months after a teacher has been nominated to a position in a kindergarten or any school below the position of principal or master in a high or grammar school, two experienced teachers who are not connected with the school in which the nominee is to serve, are designated by the superintendent to examine the teachers so nominated, while at work, and they report in writing to the superintendent; these reports, together with the testimonials and other papers relating to the qualifications and character of the teacher so examined and of all other nominees, are kept on file in the office of the superintendent and are open to inspection by members of the Board only.

The committee on teachers considers all nominations made by the superintendent. This committee confers with the superintendent, considers the reports of the examiners designated by him, makes further inquiry at discretion, and reports to the Board.

Any nomination referred to the committee on teachers, unless confirmed, lapses at the expiration of six months, not counting the summer vacation. A teacher who has failed of confirmation is not to be nominated to a similar position within two years, except on the approval of the committee on teachers.

This committee inquires and reports to the Board in executive session as to the success of any teacher in the employment of the city when so requested by any member of the Board or by the superintendent, and no teacher under such inquiry receives the regular increase of salary except on the recommendation of this committee.

Under the direction of the superintendent, teachers may visit other schools to observe the discipline and instruction. They may be required to attend teachers' meetings or courses of instruction in methods of teaching for one hour a week. Such meetings may be held on Saturday morning during term time or at such other time, not in school hours, as the superintendent may direct. Meetings in addition to those indicated above may be held by the superintendent or may be called by him, on request of directors in special subjects.

## SALARIES OF TEACHERS AND SCHOOL OFFICERS

## LATIN SCHOOL AND ENGLISH HIGH SCHOOL.

Head Masters . . . . .	\$3,000 00
Masters . . . . .	2,000 00
Masters' Assistants . . . . .	1,200 00
Teachers, first year . . . . .	700 00
with an annual increase of \$50 until \$950, the maximum, is reached.	
Assistant Teachers, first year . . . . .	500 00
"      "      second year and each succeeding year . . . . .	600 00

## RINDGE MANUAL TRAINING SCHOOL.

Head Master . . . . .	\$3,000 00
Master's Assistant . . . . .	1,300 00
Teachers' salaries range from \$900 to \$1,500.	

## WELLINGTON TRAINING SCHOOL.

Master . . . . .	\$2,800 00
Supervising Teachers (three), first year . . . . .	900 00
"      "      second year and each succeeding year . . . . .	1,000 00
Master's Assistant, first year . . . . .	800 00
"      "      second year and each succeeding year . . . . .	900 00
Teachers of the eighth grade . . . . .	700 00
"      of the seventh grade . . . . .	450 00
"      in the training class from \$200 to \$450.	

## GRAMMAR AND PRIMARY SCHOOLS AND KINDERGARTENS.

Masters of grammar schools, maximum . . . . .	\$2,300 00
Sub-masters, first year . . . . .	1,000 00
with an annual increase of \$100 until \$1,400, the maximum, is reached.	
Masters' Assistants, first year . . . . .	800 00
"      "      second year and each succeeding year . . . . .	900 00
Teachers of the ninth grade, first year . . . . .	750 00
"      "      "      "      second year and each succeeding year . . . . .	800 00
Special Teachers in grammar schools, first year . . . . .	700 00
"      "      "      "      second year and each succeeding year . . . . .	750 00
Principals of primary schools, first year . . . . .	700 00
"      "      "      "      second year and each succeeding year . . . . .	750 00
with five dollars additional for each room under her supervision.	
Teachers of grammar and primary schools and of kindergartens, first year . . . . .	450 00
with an annual increase of \$50 until \$700 is reached.	
Assistant Teachers of grammar and primary schools and of kindergartens, first year . . . . .	450 00
with an annual increase of \$50 until \$600 is reached.	

## SUBSTITUTES.

The pay of a substitute teacher in a high school, who is employed temporarily, is \$2.50 a day; if employed one month or more, it is at the rate of \$500, \$600, or \$700 a year, the sum to be determined by the superintendent, who shall consider the experience of the teacher and the position to be filled, in fixing the sum.

The pay of a teacher who is employed temporarily as a substitute in a grammar school, a primary school, or a kindergarten, is \$1.00 a session; if employed one month or more, it is at the rate of \$450 a year.

## SPECIAL TEACHERS AND OFFICERS.

Director of Music . . . . .	\$2,000 00
Assistant Teacher in Music . . . . .	800 00
Director of Drawing . . . . .	2,000 00
Assistant Teacher in Drawing . . . . .	800 00
Instructor in Physical Training in the High Schools . . . . .	950 00
Director of Sewing . . . . .	700 00
Teachers of Sewing . . . . .	650 00
Superintendent of Schools . . . . .	3,500 00
Supervisor of Primary Schools . . . . .	1,350 00
Agent of the School Committee . . . . .	2,450 00
Truant Officers (four are employed) . . . . .	1,000 00
Secretary of the School Committee . . . . .	400 00
Page of the School Committee . . . . .	25 00
Secretary and Librarian of the Latin School . . . . .	650 00
Secretary and Librarian of the English High School . . . . .	650 00
Secretary and Librarian of the Rindge Manual Training School . . . . .	650 00

## EVENING SCHOOLS.

Principal of High School	per evening . . . . .	\$4 00
Principal of Elementary Schools	" " . . . . .	3 00
Teachers in Drawing Schools	" " . . . . .	3 00
Teachers in High School	" " . . . . .	2 00
Teachers in Elementary Schools	" " . . . . .	1 50

## PENSIONS FOR TEACHERS

The legislature of 1908 passed the following act providing for the pensioning of teachers:

### CHAPTER 498, ACTS OF 1908.

SECTION 1. In any city or town, except the city of Boston, which accepts the provisions of this act, a pension fund shall be established for the retirement of teachers in the public schools. The fund shall be derived from such revenues as may be devoted to the purpose by the city council of a city or by direct appropriation by a town. The treasurer of the city or town shall be the custodian of the fund, and shall make annual or semi-annual payments therefrom to such persons and of such amounts as shall be certified to him by the school committee.

SECT. 2. The school committee of any city or town which shall accept the provisions of this act may retire from active service and place upon the pension roll, any teacher of such city or town who is sixty years old or over, or is, in the judgment of said committee, incapacitated for useful service, and who has faithfully served such city or town for twenty-five years. The amount of the annual pension allowed to any person under the provisions of this act shall not exceed one-half of the annual compensation received by such person at the time of such retirement and in no case shall exceed five hundred dollars.

SECT. 3. Upon the petition of not less than five per cent of the legal voters of any city or town, this act shall be submitted, in case of a city, to the voters of such city at the next city election, and in case of a town, to the voters of such town at the next annual town meeting, and the vote shall be in answer to the question, to be placed upon the ballot:—Shall an act passed by the general court in the year nineteen hundred and eight, entitled "An act to authorize cities and towns to establish pension funds for teachers in the public schools", be accepted? and if a majority of the voters voting thereon at such election or meeting shall vote in the affirmative, this act shall take effect in such city or town.

SECT. 4. So much of this act as authorizes its submission to the voters of a city or town shall take effect upon its passage, but it shall not take further effect in any city or town until accepted by the voters thereof as herein provided.

The act provides that the pension fund shall be derived from such revenues as may be devoted to the purpose by the city council. This would mean for Cambridge a special appropriation for pensions outside the five dollars per thousand allowed by law for the schools.

At the meeting of the school committee on January 7, 1909, the following order was adopted:

"Ordered, That the school committee recommends the adoption by the city of the act of the legislature, Chapter 498 of the Acts of 1908, in regard to the pensioning of teachers in the public schools, consideration of which was referred to this committee December 17."

### TUBERCULOSIS

Chapter 181 of the Acts of 1908 provides that "in each of the subjects of physiology and hygiene, special instruction as to the effects of alcoholic drinks and of stimulants and narcotics on the human system, and as to tuberculosis and its prevention, shall be taught as a regular branch of study to all pupils in all schools which are supported wholly or partly by public money, except schools which are maintained solely for instruction in particular branches."

This new subject in the curriculum is receiving attention. A meeting of all the teachers has been held, at which Dr. Eugene A. Darling, the president of the Cambridge Anti-Tuberculosis Association, made an address in which he outlined ways in which the subject may be studied in the schools. When the society held its exhibit, classes from the grammar schools went with their teachers and made notes of what they saw and of what they were told. From these notes compositions were written and discussions were held at the schools.

A series of grade meetings to consider ways of teaching this subject is now being arranged in co-operation with the education committee of the Cambridge Anti-Tuberculosis Association.

## SPECIAL OCCASIONS AT THE HIGH AND GRAMMAR SCHOOLS

The following pages contain some account of special occasions at the high and grammar schools during the past year. Ways in which the school halls have been made useful to the people of the neighborhood are described; and some lines of educational and social life peculiar to individual schools are set forth. Mention is made of gifts received during the years 1906, 1907, and 1908. These gifts were furnished by the masters and principals at the request of the superintendent of schools.

**Latin School.** The school hall has been used for meetings of the Cambridge Teachers' Club, at one of which Mr. Booker T. Washburn was the speaker, and at another Professor Bliss Perry. The Cambridge Historical Society held one open meeting in the hall, and awarded the prizes in the Longfellow prize competition. The same society has held two meetings in the Science Lecture Hall.

The following gifts have been received during the last three years:

Class of 1906. Large plaster cast: The Marble Faun.

Class of 1907. Large plaster cast: Discobolus.

Class of 1908. Large plaster cast: The Winged Mercury.

**English High School.** During the year we have had several interesting meetings in the assembly hall. At one of these meetings J. Asbury Pitman, principal of the Salem Normal School, talked to the pupils upon the history of normal schools and the qualifications needed by those who were planning to take up the profession of teaching.

Miss Helen A. Wright of the Cantabrigia Club, addressed the pupils upon the proper way to organize and carry on a meeting, and gave a practical illustration of her instructions.

Miss Ellen Paine Huling gave a talk before the school upon her experiences in the wilds of Labrador. This was listened to with great interest by the pupils and gave them new fields of thought.

**Rindge Manual Training School.** During a discussion held at a parents' meeting at the Rindge Manual Training School in December, a suggestion was made that a permanent organization of the parents be effected for the purpose of giving the school the benefit of the suggestions and helpful criticisms of the parents. In conformity with



this suggestion a committee was appointed by the head master of the school, to consider ways and means of organization. This committee held a meeting at the school office, discussed various matters of material interest to parents and teachers, and determined to recommend to the parents that an executive committee be appointed to arrange for meetings of the parents and to carry out any other work which they wished to undertake. The members of the committee were very enthusiastic over the possibilities for good that exist in such an organization. As the committee was of the opinion that the boys would be able to avail themselves of the advantages offered by the school to much better advantage if the parents were better instructed in the aims, methods, and courses of study of the school, they decided to make the first meeting one in which these matters could be thoroughly explained. At this first meeting we are to have two speakers, one to explain the opportunities the school offers, and the other, a graduate of the school, to explain the results of some of the work offered.

**Agassiz School.** A sale was held February 21, 1908, to which the friends of the school gave generous patronage. The proceeds, \$124.90, were used to make the school building more attractive. Four good pictures were bought, also a large bracket bust of Agassiz, and a pedestal bust of Lincoln. In addition to this a number of shrubs were set out for the protection of the lawn.

Previous to the sale there had been in 1907 a commemoration exercise for Longfellow, and the school had purchased a pedestal bust of the poet.

**Ellis School.** On Monday mornings the master gives talks to the school in the hall on moral, scientific, or civic subjects. The school has received during the last three years, a bust of Longfellow; a bust of Agassiz; a bas-relief of the Boy Trumpeter by Della Robbia; an illustrated chart of the life of Lincoln; and a flag from Post 56 of the Grand Army of the Republic.

**Fletcher School.** No parents' association has ever been formed at the Fletcher School, although it has been the custom to have meetings of the parents ever since the school was opened. These meetings have always been of a social nature, intended to create a friendly feeling between the parents and the school, and have been very gratifying in their results. There is no better proof of this than the support, financial and other, which every occasion at the school receives.

On October 23 and 24, 1908, there was held in the school hall an Art Exhibit and Bazaar. The exhibit comprised two hundred pictures suitable for school decoration, loaned by the Turner Art Company, while the bazaar consisted of a sale of all kinds of useful articles and refreshments. Admission tickets at ten cents each were placed in the hands of the children and the response of the people was surprising. This sale alone amounted to over one hundred fifty dollars. The business men assisted us by advertising, and the friends patronized our booths, so that the sum total obtained enabled us to purchase forty-two new pictures in various parts of the building. These pictures, together with the frieze of Alexander, presented to the school by the class of 1908, have added greatly to the decoration of the building. There is now in process of painting by Mr. Peter Roos, the director of drawing, a picture to be presented to the school by the class of 1909, and a friend has this year signified her intention of presenting at some time in the future a large oil painting of the Latterhorn.

Each school takes pride in some particular feature of its work. The Fletcher School has always given special attention to the manner of dismissal, and we are very fortunate at present in being able to have the children march from the building to the music of an orchestra of nine pieces.

The Fletcher Improvement League is much enjoyed by the pupils of the school. The following is the form of application for membership:

#### FLETCHER IMPROVEMENT LEAGUE

Organized March 17, 1908

To the president and members of the.....division of the Fletcher Improvement League, I,.....a pupil of.....grade, room....., having at heart the good interests of my fellow pupils and the school, offer myself a candidate for membership in the above league. If my petition is granted, I promise to comply cheerfully with the by-laws, and so to conduct myself that I shall be a living example of those noble and manly characteristics for which the league stands.

I do.....believe in obedience to rules and upright conduct.

I do.....believe in honesty and truthfulness.

I do.....use cigarettes.

I do.....guard against the use of unclean language.

I have.....before applied for membership.

Signed.....

member,.....

I, a member of the league in good standing, hereby certify that I am acquainted with.....and believe.....of upright conduct and good moral character, and therefore recommend at.....be elected to membership.

Signed.....

**Harvard School.** Our hall was used the evening of November 19, 1908, by Mr. Herbert M. Allen, who gave an illustrated lecture on Japan and the Japanese for the benefit of the school.

We have received a gift of fifty dollars from Mr. William L. Barrell of Lawrence, as a memorial of his uncle, Mr. James S. Barrell, who was master of the Harvard School for twenty years.

Since the current school year began we have expended one hundred dollars for the adornment of the different rooms in the building.

As a special feature of this school year may be mentioned the extended use of the stereopticon in school work. Miss Louise C. Patterson, one of our teachers, a former president of the Geography Club of Boston and vicinity, has given a series of talks or lectures on geographical subjects as follows:

#### HOW THE LAND WEARS OUT.

- Frost action.
- Decay of rocks.
- Stream action.
- Deep, young, narrow valleys or canyons.
- Wider, older, more useful valleys.

#### HOW MOUNTAINS ARE MADE.

- What layers of rocks mean and where they are made.
- Their new place high in the air in a bent, squeezed, and crumpled condition.
- Forms still left as these folded masses wear out.
- The cracking and slipping of the rocks while being raised high, *viz.*, earthquakes.
- Block mountains made by such slipping.

#### VOLCANOES.

- Resulting from deep earth cracks.
- Vesuvius and Kilauea as contrasting types.
- Lava fields in the Hawaiian Islands and in the United States.
- Quality of soil resulting from lava.
- Old volcanoes in the United States, etc.

#### YELLOWSTONE NATIONAL PARK.

- An old, wide valley among the Rocky Mountains, lava filled for two thousand feet.
- One thousand hot springs and one hundred geysers being a final stage in a region of former great activity in mountain building and vulcanism.
- Yellowstone canyon cut twelve hundred feet deep in this lava.

In addition to these talks, teachers who have been abroad have given us the benefit and pleasure of their trips by entertaining us, and by the aid of the stereopticon they have described the scenes they have witnessed.

**Houghton School.** The day before Thanksgiving we held a fair, and gave an exhibition, consisting of the products of the farm and garden. These products were contributed by the children for distribution among the poor of our district. The quantity was very considerable, loading twelve of our school tables.

The educational value was very great in acquainting the children with some products they had never before seen. It was gratifying to note the attention given by the children as some wrote from memory the names of more than fifty different products.

We use our assembly hall on many occasions during the year, for talks on the wonders of nature, for birthday celebrations, etc.

Within a year we have come into possession of two oil paintings by Mr. Peter Roos, the director of drawing, Niagara and Concord Bridge. Mrs. Franklin Everett gave two noteworthy steel engravings, *The Landing of the Pilgrims*, and *The Village Blacksmith*. The plates were made by Henry Graves of London, the former in honor of the people of the United States, and dedicated to a member of parliament. The same friend had previously given four other beautiful and well framed steel engravings.

Our kindergarten mothers' club has held ten meetings during the year at which the following subjects have been discussed: Care of the teeth; health in general; how to apply bandages; experience of traveling; discipline; and work with the children in the kindergarten room.

**Kelley School.** During the greater part of the past year the upper grades assembled in the hall every Monday morning for general exercises. At some of these meetings short talks were given by persons not connected with the schools. It is with deep regret that we have given up those exercises this year. Although the hall has been used for class purposes, a few meetings have been held in the evening. There was a free entertainment for the parents by the Harvard Entertainment Troupe, at the close of which an opportunity was given for the teachers to meet the parents.

The most important of the evening entertainments was given for the purpose of raising money for the purchase of pictures for the classrooms. An exercise arranged by the teachers called, *The Whole Year Through*, netted us something over one hundred dollars. All the grades participated, and each month of the year was represented by appropriate songs, drills, recitations, or exercises. Many of the characters were in costume. The entire exercise is soon to be printed in one of the educational journals.

The hall has also been used for lantern slide exhibits in connection with classroom work. Some teachers have invited the parents to attend school for an afternoon to witness the regular work of the school. Such meetings proved very helpful.

Mothers' meetings are held regularly in connection with the Shaw Kindergarten, which meets in this building, but as a school we have no parents' association. We hope, however, to have one when we have the use of the hall again.

During the year we organized an Anti-Cigarette League which started out well. We have not continued the organization this year because we have had no meeting place, as our hall is used by classes from the Wellington School. We plan to get the league into active work soon and in the meantime we are doing what we can in the classrooms.

Each graduating class presents a picture to the school for the assembly hall.

**Morse School.** The most valuable gift to the school in recent years is a fine life-size portrait of Honorable Asa P. Morse, painted by Darius Cobb. It was presented to the school by Miss Velma M. Morse, and it occupies the place of honor in the assembly hall. The school is most fortunate in being assured of the personal interest of Mr. Morse's family, to whom it is indebted for handsome chairs for the teachers' library, educational papers, and generous sums of money to be expended for books for the school library.

The following class gifts have been received during the past three years:

Class of 1906. Large relief: The Harvesters.

Class of 1907. The Grand Canal, Venice.

Class of 1908. The Capitol at Washington.

Two lectures have been given in the assembly hall by Mr. Charles D. Kellogg, whose descriptions of birds and reproductions of their songs were most interesting. One lecture was given for the pupils and one for the friends of the school, and both were highly successful. There was also a pleasant reunion of the class of 1907 in the assembly hall.

**Peabody School.** The classes of 1906 and 1907 each gave casts of two sections of the Western Frieze of the Parthenon; and the class of 1908 gave Thorwaldsen's Morning and Night. The gifts of these three classes completed the adornment of the assembly hall. The

class of 1908 also gave a large Pompeian vase, of bronze finish, for one of the corridors.

In connection with the kindergarten there is a mothers' club which holds seven meetings a year. The object of these meetings is to bring the mothers and teachers into closer relationship, and to further the interests of the kindergarten by talks and discussions upon different phases of the work. In the year 1906 the club presented the kindergarten with two casts, Boys Playing on Trumpets, and Boys Playing on Drums.

In the year 1906 a life-size crayon portrait of the master of the school, handsomely framed, was presented by two sisters, graduates of the school. At their request their names were not announced.

In November last the children, as usual, took great pleasure in bringing to school a large quantity of Thanksgiving supplies which was distributed to many needy families in the district.

**Putnam School.** The following associations are connected with the Putnam School:

The Putnam School Parents' Association.

The Putnam School Anti-Cigarette League.

The Putnam School City.

The Putnam School Parents' Association holds four meetings a year. These are not large gatherings, but topics of mutual interest are considered, and real benefit results. When the association was started there was a large representation of the teachers on the executive committee; now there are but two. The great difficulty is to get the fathers to manifest an interest in the association.

The Putnam School Anti-Cigarette League is very much alive and is doing an excellent work. Meetings are held each week with a good attendance. Graduates keep up their interest in the meetings and some of them are always present. The league gave a unique and interesting entertainment in October. This was noteworthy as all the details were planned and executed by the officers of the league. The officers and members are earnest in their efforts to keep members from backsliding and to bring in new recruits. Suspensions are used for first offence, followed by expulsions if there are repetitions.

The Putnam School City carries on in a grand way its work of assisting in the government of the school. The citizens are members of the eighth and ninth grades. The officers, as a whole, are business-like and efficient, and display a sense of responsibility and self-

control. This spirit is reflected in turn by the surprising willingness on the part of all the pupils to submit to authority, and to conform with expressed wishes of master and teachers. The value of this organization is thus twofold.

The following gifts have been received during the past three years:

In our hall is a large oil painting of General Israel Putnam, by Darius Cobb, which bears the following inscription:

"Presented to the Putnam School  
by Edward B. Malley, Esquire,  
a member of the  
School Committee of Cambridge  
1881-1886—1891-1902.  
December 21, 1905."

The graduating classes have contributed gifts each year. Mrs. Augustus Nellson, the wife of our former janitor, secured sufficient funds from the friends of the school to purchase a beautiful silk State flag. This is a companion flag to the one presented by Mrs. Nellson several years ago.

The P. Stearns Davis Woman's Relief Corps, No. 66, presented each classroom with a silk flag of suitable size, and so the flag is before all the pupils during school hours.

**Roberts School.** Our school hall was used occasionally by day, when we gathered for morning exercises. At such times a short address was given by some invited guest. Mr. Theodore H. Raymond spoke in a delightful way on one of these occasions. Afternoon gatherings of parents were held at different times on invitation of teachers and children of some grade. We have had such meetings in the sixth, seventh, eighth, and ninth grades. A short program of music, reading, and recitations, or stereopticon views was given, followed by light refreshments and pleasant conversation. These meetings proved to be decidedly helpful.

In November, Mr. Charles D. Kellogg, the lecturer on birds and bird songs, was with us once in the afternoon and once in the evening. In March, Reverend George W. Bicknell, D. D., gave an evening address, *Down in Dixie*, and later the pupils of the eighth grade gave an evening entertainment, Paul Revere being the subject. The pupils of this grade by their own exertions have purchased within two years a library of ninety books and a handsome book-case to hold them, besides some pictures for the walls.

During the past three years the graduating classes have made the following gifts to the school:

Class of 1906. Picture of Hope, by Burne-Jones.

Class of 1907. A plaster cast for the assembly hall and a picture for a classroom.

Class of 1908. Twenty dollars for the relief of the Chelsea sufferers.

We are indebted to the William H. Smart Woman's Relief Corps, No. 27, for a set of handsome flags, one for each room in the building, and to the Sons of Veterans for a picture, From Log Cabin White House.

Mrs. Austin C. Wellington gave us a framed calendar of the Civil War. Miss Emma A. Scudder presented a cabinet of sea shells, properly arranged and labelled. Miss Olive Fisher presented a cabinet of insects. Many pictures, large and small, have been purchased for the school out of our own funds within three years.

**Russell School.** Memorial Day of last year was very interesting. With the entire school in the hall, Colonel John E. Gilman, Superintendent William C. Bates, and Mrs. A. J. Littlefield of Tent 30, Daughters of Veterans, made stirring addresses. The boys and girls recited selections and the whole school contributed patriotic music. The occasion was made memorable to the pupils by the kindness of Tent 30, Daughters of Veterans, who, through Miss Helen Littlefield, presented twelve beautiful silk flags to the school, one for each class.

The school has received the following notable gifts during the last three years:

In 1906 a frieze, The Triumph of Alexander, was placed in the fourth grade room by the class of that year. In 1907, busts of Dickens, Emerson, Lowell, Paul Revere, Sumner, and Whittier were given by the graduating class. Also a picture, The Minute Man at Concord, as given by Professor and Mrs. George P. Baker.

The class of 1908 presented an oil painting, A View to the North of the Russell School in October, 1907, the work of Mr. Peter Roos, the director of drawing. Framed by contributions from the entire school, the picture preserved a scene of rare beauty, the signal of which, through the rapid building of houses, will soon be lost forever. It hangs in our hall, a proof of the artistic ability of our beloved teacher, and an object of interest to all observers.



The school is entering on the twelfth year of its existence. Nearly five hundred pupils will have graduated by the end of this school year. The names and addresses of all of these have been brought together with a view to a permanent record. In the near future an alumni association will be formed.

**Shepard School.** In February of last year we had exercises in commemoration of Washington, participated in by classes and individuals, with patriotic music. We also had exercises on the day preceding Memorial Day, and we were addressed by Mr. Leonard D. Garfield, detailed by Post 56 of the Grand Army of the Republic.

On the seventh and eighth of October we had an exhibition of pictures, the proceeds from which we used for beautifying the classrooms. Connected with this was a sale of home made candy, generously contributed by parents and friends, from which we realized a goodly sum. Friends subscribed ten dollars and we were thus able to spend \$166.88 for pictures. This allowed two good-sized pictures in each room and one for the office. The affair proved an educational advantage to the children, as arrangements were made so that each child saw every picture, learned to use the catalogues, and gained an intelligent knowledge of many of the representations. A program of music was carried out by the children who could play the piano, and a large company was entertained each day.

The only gift we have received was a framed picture, From Log Cabin to White House, presented by the Sons of Veterans.

**Sleeper School.** On May 5, 1908, a delegation from the Charles Beck Woman's Relief Corps, No. 2, presented us with two silk flags with standards, one to be placed in the room of the sixth grade, and one in the room of the fifth grade.

On May 29 of the same year, as many pupils as could be accommodated were assembled in one room, and after appropriate exercises an address was given by Mr. Moses Abbott Wood of Westminster.

In May, 1907, the Woman's Relief Corps gave to the school a large bunting flag which is displayed at all times within the building.

**Taylor School.** Our school is interesting on account of the rapid growth in knowledge of our language, and adaptation to our American ways, by the many foreigners we have had.

Our exercises in the hall on Memorial Day mean very much to the children in this part of the city. They are made interesting each year by the gift from Mr. William R. Adams, of the Grand Army of the Republic, of a flag to every child in the primary and lower grammar grades. When these flags, nearly four hundred in number, are flung out to the singing of the patriotic songs, it is an inspiring sight; and when the children are dismissed that day, the whole ward is bright with flags.

The unselfishness and sympathy of the people here are shown at our Thanksgiving exercises in the hall. The children, who wish to, bring fruit, vegetables, or groceries. The front of the stage is always loaded through their generosity. The gifts are sent to the East End Christian Union.

In December of 1907, Mr. Charles D. Kellogg gave a lecture on birds. We shared this pleasure with the primary children of the Lassell and Otis schools as these schools have no halls.

Last spring an agent from the Anti-Cigarette League gave a talk in each of the grammar rooms. A branch league to the Putnam School was formed and many joined.

Every year our grammar teachers take groups of children to the Natural History Rooms and to Agassiz Museum. In the spring the primary teachers take their classes, one at a time, to some nearby park for half of an afternoon.

Our kindergarten mothers' meetings have been a blessing to the neighborhood. The principal arranged to make them of great help and use to the mothers. The meeting in November was upon Folk Songs and Dances, and was conducted by Miss Murray of Boston. Last March a concert was given in the evening in the hall under the auspices of the Taylor Kindergarten Mothers' Association. The Cantabrigia Club and a Mandolin Club assisted.

Our lawns and yards are watched over by our older boys who thus help to keep the lawns green.

**Thorndike School.** The Thorndike Home and School Association was formed in February, 1908. The association numbers two hundred parents, representing three-fourths of the families of the district who have children attending the Thorndike School.

The first meeting was held at the school, but as there is no room suitable for the purpose, subsequent meetings took place in a public hall. Four meetings have been held during the year.

The object of the association is to bring the home and the school

into closer relations; to create in this section of the city a more lively school interest; to work for the improvement of the school district; and to give the parents an opportunity to hear good speakers on subjects of educational interest.

The speakers during the year have been Honorable Walter C. Wardwell, Superintendent William C. Bates, Honorable Charles H. Thurston, Ex-Superintendent Francis Cogswell, Dr. William H. Clancy, Miss J. M. C. Hume, Mrs. Selma Berthold, Mrs. Elizabeth White, and Edward A. Counihan, Jr., Esquire.

The neighborhood committee, the purpose of which is to visit homes where there is sickness or need, has furnished food, clothing, and shoes, making it possible for children to attend school.

The first public entertainment, a stereopticon lecture, A Tour of the White Mountains, was given on November 13. The net proceeds of the lecture amounted to \$114 and the sum has been used in purchasing pictures for the school.

The attendance during the first ten weeks of the school year was four per cent higher than the average attendance of several preceding years for the same time. This is due in part to the increased interest in the school by the parents.

**Webster School.** As the insurance on our pictures and other treasures was to expire in November, graduates were called upon to furnish an entertainment in order to provide funds for renewing the insurance. The reply was most loyal and hearty, alumni responding from a length of time covering half a century. Our friends were so generous that we had to stop the sale of tickets, and our net proceeds were just twice the amount needed.

We sent our customary generous Christmas collection of food to the East End Christian Union, and also had our usual Christmas program in the hall on our closing session.

**Wellington School.** Since our new assembly hall was opened last November it has been the scene of many educational and social gatherings. The large audience present at the opening night included Mayor Wardwell and members of the city government. After an address of welcome by Mr. Herbert H. Bates, the master of the school, speeches were made by His Honor the Mayor, members of the school committee, and other prominent men of the city. During the evening the eighth and ninth grades sang, and Miss Mary I. Vinton, one of the supervisors of the schools, gave an illustrated talk upon

the city of Washington. The Wellington Mothers' Club has had four meetings in the hall during the year, as follows:

1. Fathers' night, an annual event. The speakers were His Honor Mayor Wardwell, Mr. William C. Bates, and Mr. Herbert H. Bates. The entertainment consisted of a concert and readings by the Cowlshaw Concert Company.

2. My trip to Japan. This was a talk by Miss Helen W. Munroe, a teacher in the Latin School. Miss Munroe brought with her from Japan many interesting pictures, costumes, and curios, which were on exhibition that afternoon. Music was furnished by the Cantabrigia Glee Club.

3. A stereopticon lecture. My trip to Quebec, by Miss Vinton.

4. An educational meeting held by the people of the district to suggest means for keeping the kindergartens. The speakers were Edmund A. Whitman, Esquire, Lawrence G. Brooks, Esquire, Mr. Herbert H. Bates, Mr. H. Warren Foss, Ex-Representative James T. Barrett, and Mr. Edward A. Counihan, Jr., Esquire.

Mr. Charles D. Kellogg entertained the children of the district one afternoon with his wonderful bird songs, anecdotes of animal life, and beautiful stereopticon views. A similar entertainment was given in the evening for the parents.

One afternoon Professor George H. Barton gave an illustrated lecture on Hawaii, to the Eighth Grade Club. Parents and guests of the members were present.

The Wellington Anti-Cigarette League, consisting of about four hundred boys, held two mass meetings in the hall during the year. The speakers were Reverend Perry Bush of Chelsea, Mr. Starbuck, Mr. William C. Bates, Mr. Herbert H. Bates, Mr. Francis Cogswell, and Mr. H. Warren Foss.

Once each month on Friday a pleasant afternoon was spent in the hall by the pupils of the eighth and ninth grades, it being their custom to invite parents, friends, and graduates to listen to music, recitations, and some exercise of an educational character prepared during the preceding month.

Every Monday morning the pupils of the eighth and ninth grades assembled in the hall for opening exercises. After devotional exercises and music, a short lecture was given by one of the teachers.

One evening in April the Ninth Grade Club recited the poem of Evangeline to parents, friends, neighbors, and graduates. The recitations were interspersed with appropriate music and were illustrated by stereopticon views.

Between six and seven hundred parents and children of the neighborhood assembled in October to listen to an illustrated talk upon a trip to Montreal and Quebec by way of Lake George, Lake Champlain, and Ausable Chasm, given by Miss Vinton.

In February the Cambridge Teachers' Club met in the assembly hall to listen to a talk upon Montreal and Quebec by Miss Vinton. Music was furnished by the Latin School Orchestra and the Rindge Manual Training School Glee Club.

Thanksgiving, Christmas, and Memorial Days were observed by suitable exercises to which parents and friends were invited.

The last meeting of the year, and one that taxed the seating capacity of our hall to the utmost, was upon the occasion of the graduation of the class of 1908. The large audience listened appreciatively to the exercises which were upon the life of Abraham Lincoln.

The Eighth Grade Club raised a sum of money which they used in buying books for their library and a picture for the hall. This club also gave a part of the money with which the large picture, The Return of the Mayflower, was bought. They gave a bust of Washington which is in the eighth grade room, and a bust of Agassiz which is in the hall.

### THE SPIRIT OF THE SCHOOLS.

Effort is made to dissuade pupils from planning to go to work as soon as the age at which they can be legally employed is reached. The fact that each year demands better preparation for the duties of life is emphasized in talks with parents and pupils. The co-operation of home and school is giving the schools better understanding of the home conditions from which the children come to the schools, and is giving to the homes more sympathy with the plans and ways of management of the schools. The parents' associations establish personal and friendly relations between parents and teachers and bring about a condition which makes the presumption in favor of the teachers when difficulties and troubles arise at school.

Summer playgrounds in school yards and in public parks, the vacation schools, and the evening schools help to keep young people away from the baleful influences of life on the streets.

The school physician, the school nurse, and the teachers are all giving much attention to the physical condition of the children. If a child is in a vigorous physical condition he will respond cheerfully and enthusiastically to the appeals to his interest that are made by a good school.

If a child fails to give himself zealously to his work in school the supposition is that some physical impediment is making his will weak and his powers of application poor.

What seems like stubbornness on the part of the child is not often followed by immediate severity, nor is failure accepted as the thing to be expected from any child, but the causes for these unfortunate conditions are sought, found, and, if possible, removed.

As the good work of the pupils is commended, and as that which is right is enjoyed by teachers and pupils together, a growing disposition to get in line with that which is excellent becomes the dominant spirit.

The schools which do not attempt to have all pupils do a given thing in the same way, and which encourage originality and initiative in the children, are the happiest, because in them is encouraged the spirit that desires to know and do. Teachers in such schools are constantly discovering special talent in individual pupils and are enjoying the privilege of helping in its development. Teachers sometimes find pupils in their classes who can quite as well do the work of a higher grade, and then in unselfishness these teachers part with

their best pupils; they send them into the higher grades, where they ought to be.

Teachers sometimes find in their classes children who are becoming disheartened, and who are in danger that they may acquire the habit of failure, because they are in a grade that makes demands that are too severe. Such cases call for the most careful treatment. After conference between teacher and parents the good and the happiness of the child are in some instances secured by adjusting him to the work of a lower grade where he can have joy in his work, because he is able to do it.

A graded system that is rigid, stiff, formal and unyielding, that holds pupils of exceptional ability back, and at the same time drags along pupils who should go more slowly, is giving the public poor service. But the school which is conducted "by methods in harmony with natural capabilities; by exciting initiative and individuality; by more promptly rating excellence and achievements and rather by amending than by harshly exposing and punishing faults and demerits," is giving the public good service and is cultivating in the pupils the habit of hearty and successful application to the work of life.

In the schools of Cambridge we have accepted the word "Hearten" as indicating our duty and our privilege. The teachers are giving themselves unsparingly to the work of heartening, and in this work they are having much satisfaction.

## SCHOOL COMMITTEES

On the first Monday of April, 1909, the new school committee five members will take charge of the schools of Cambridge. Some account of the school committees of the city is, therefore, of interest this time. The following is from the school report for 1895:

"The first meeting of the school committee under the city charter was held May 6, 1846. There were present His Honor Mayor James Green, Messrs. William A. Stearns, John A. Albro, Daniel Austin, William W. Wellington, John S. Ladd, and William Leverett. Joseph Parker, although absent, was elected secretary for the year ending, having held that position in 1845. John S. Ladd was chosen secretary pro tem. At a subsequent meeting Dr. Parker was 'excused from serving as secretary,' and Dr. W. W. Wellington was elected; and this was the beginning of Dr. Wellington's long and invaluable service of more than forty years as a member of the committee and secretary of the Board."

From 1846 to 1858 the school board was composed of seven members; the number was then increased to ten, and in 1868 to fifteen. The last Board of fifteen was made up as follows:

Charles H. Saunders, Chairman *ex officio*.

FROM WARD ONE		
Francis J. Child	William W. Goodwin	Morrill Wyman
FROM WARD TWO		
Edward Abbott	Hamlin R. Harding	Thomas Scully
FROM WARD THREE		
John W. Hammond	Grove H. Loomis	Joseph H. Tyler
FROM WARD FOUR		
John Appleton	Edwin B. Chase	Asa P. Morse
FROM WARD FIVE		
Martin Draper, Jr.	Herbert H. Stimpson	James R. Morse

Professor Goodwin and Mr Appleton resigned in April, and in the next convention with the board of aldermen in May, Professor Francis Bowen and Mr. Henry O. Houghton were elected to fill the positions thus made vacant. Professor Bowen had already served on the Board for six years and Mr. Houghton for five years.

This committee was composed of three clergymen, two professors, two lawyers, two doctors, and six business men. Mr. Hamlin



R. Harding afterwards served the city as mayor, as also did Mr. Henry O. Houghton.

Women were first elected to the Board in 1880, and from that year to the present time there has been at least one woman on the Board. Miss Sarah S. Jacobs and Mrs. Phebe M. Kendall were elected in 1880 and they served respectively seven and fourteen years. Eleven other women have been elected to positions on the Board:

Mrs. Elizabeth Q. Bolles	Mrs. Ellen A. Goodwin
Mrs. Carolyn P. Chase	Miss Ada R. Kinsman
Mrs. Ellen M. Coburn	Mrs. Jenny H. S. Lansing
Mrs. Caroline L. Edgerley	Miss Alice M. Longfellow
Mrs. Carrie S. Fairbairn	Mrs. Mary E. Mitchell
Miss Anne Clark Stewart	

Mrs. Carolyn P. Chase has been a member of the Board since January, 1892. When her term ends in April next she will have given over seventeen years of continuous service to the schools of Cambridge. No other woman has been on the Board so long. She has been appointed a member of the standing committee on kindergartens each year and has served as chairman of this committee for the years 1904, 1906, 1907, 1908.

Since she has been a member of the Board, the number of kindergartens has increased from six to sixteen, and the number of pupils in the kindergartens has grown from three hundred fourteen to eight hundred sixty-seven.

The office of president of the Board, or presiding officer, as it was then called, was created in 1891. Mr. Albert M. Barnes was elected the first presiding officer. Mr. Barnes retired from the Board at the end of the year 1891, and Mr. William Taggard Piper, who was elected from Ward One in joint convention on March 10, 1891, succeeded Mr. Barnes as presiding officer and has continued in the position until the present time.

When he retires from office, Mr. Piper will have served over eighteen years, and will have been president of the Board for more than seventeen years. He has been a frequent visitor to the schoolrooms and has kept acquainted with the work of the teachers. His judgment has been sought by parents, teachers, and officials, and his counsel has made the way plain for many who were dealing with problems of school administration. By his service, so exceptional in length and so great in value, he has earned a high place upon the roll

of those who in the city of Cambridge have devoted themselves to the public welfare.

During these forty years that the schools have been managed by a committee of fifteen, women, clergymen, lawyers, doctors, university professors, and business men have given freely of their time to the schools of the city.

The present secretary, Mr. Sanford B. Hubbard, was elected to his position as secretary of the Board September 20, 1888, when Dr. Wellington resigned after forty years of service,—eighteen as a member of the school committee, and twenty-two as secretary. Mr. Hubbard has served the Board well and faithfully as secretary for over twenty years, and his time of service is almost as long as was that of Dr. Wellington.

On April 1, 1868, the first committee of fifteen elected Mr. Edwin B. Hale as the first superintendent of schools in Cambridge, and only three men have held the position during these forty years. Mr. Hale served as superintendent from 1868 to September, 1873. He was succeeded by Mr. Francis Cogswell who was superintendent thirty-one years. Mr. Cogswell served as master of the Putnam School twenty years before he was made superintendent of schools.

The completion of fifty years' connection with the schools in 1904 was celebrated by a public reception to Mr. Cogswell at which he was presented with a hall clock bearing the following inscription:

"To Francis Cogswell  
Superintendent of Schools  
From the Cambridge Teachers  
And Other Friends and Neighbors  
Through a Committee of His Fellow Citizens  
27 June, 1904."

His portrait was given to the city, and a large carbon photograph, purchased at Mr. Cogswell's suggestion, was given to each school. The present superintendent, Mr. William C. Bates, has served since September, 1905.

The Cambridge school committee for 1868, the first committee of fifteen, had charge of thirty-one schools, with one hundred thirty-four teachers and six thousand one hundred sixty-seven pupils. The school committee for 1908 had charge of fifty-two schools, with four hundred fifty-nine teachers and sixteen thousand nineteen pupils. In

1868 there was one high school, with eight teachers and two hundred eighty-five pupils. In 1908 there were three high schools, with seventy-four teachers and one thousand six hundred sixty-one pupils. In all these statements concerning teachers and pupils the numbers in December are used.

Every member of the committee as at present constituted has been in office continuously from the date when first elected. The list of members with the date of the beginning of service is as follows:

Warren P. Adams . . . . .	1903
George W. Bicknell . . . . .	1897
Lawrence G. Brooks . . . . .	1906
Carolyn P. Chase . . . . .	1892
Edwin L. Cheney . . . . .	1905
Edward A. Counihan, Jr. . . . .	1907
Ada R. Kinsman . . . . .	1906
Sherman R. Lancaster . . . . .	1901
James A. Lew . . . . .	1904
William Taggard Piper . . . . .	1891
J. Henry Russell . . . . .	1901
Frank E. Sands . . . . .	1905
Joseph E. Sharkey . . . . .	1904
John E. Somers . . . . .	1905
Robert Walker . . . . .	1901

All have devoted their time unsparingly to the many demands made upon them by this department of the public service. At the schools especially assigned to individual members they have been guides to the teachers, counsellors to the parents, and welcome visitors to the children in the classrooms.

Respectfully submitted,

WILLIAM C. BATES,  
*Superintendent of Public Schools.*

IN SCHOOL COMMITTEE, February 18, 1909.

*Ordered*, That the report of the superintendent as read and outlined by him be accepted and adopted as the annual report of the school committee for 1908, and that the secretary be authorized to append the names of the members of the committee thereto.

SANFORD B. HUBBARD,

*Secretary.*

**MEMBERS OF THE SCHOOL COMMITTEE FOR 1908**

WILLIAM TAGGARD PIPER, *President of the Board.*

WARREN P. ADAMS	SHERMAN R. LANCASTER
GEORGE W. BICKNELL	JAMES A. LEW
LAWRENCE G. BROOKS	J. HENRY RUSSELL
CAROLYN P. CHASE	FRANK E. SANDS
EDWIN L. CHENEY	JOSEPH E. SHARKEY
EDWARD A. COUNIHAN, Jr.	JOHN E. SOMERS
ADA R. KINSMAN	ROBERT WALKER

# MEMBERS OF THE SCHOOL COMMITTEE AND THE YEARS DURING WHICH THEY SERVED, 1840-1909 (INCLUSIVE)

- Abbott, Edward,—1868, 1869.  
 Adams, Warren P.,—1903, 1904, 1905,  
 1906, 1907, 1908, 1909.  
 Agassiz, Alexander,—1871.  
 Albee, Sumner,—1878, 1879, 1880.  
 Albro, John A.,—1845, 1846, 1847,  
 1848, 1849, 1855, 1856.  
 Alger, Alpheus B.,—1891,\* 1892.\*  
 Allen, Charles H.,—1852.  
 Allen, Frank A.,—1877.\*  
 Allison, George A.,—1888, 1889, 1890,  
 1891.  
 Ammidon, Philip R.,—1870, 1871,  
 1872, 1873, 1874, 1875, 1876.  
 Anable, Courtland W.,—1865, 1866.  
 Appleton, John,—1867, 1868.  
 Apsey, William S.,—1871, 1873, 1874,  
 1875, 1876.  
 Atkinson, William P.,—1867.  
 Austin, Daniel,—1846.  
 Averill, Alexander M.,—1859.  
 Badger, Henry C.,—1866.  
 Ball, Joseph A.,—1889, 1890, 1891.  
 Bancroft, William A.,—1893,\* 1894,\*  
 1895,\* 1896.\*  
 Barnes, Albert M.,—1882, 1883, 1884,  
 1885, 1886, 1887, 1888, 1889, 1890,  
 1891.†  
 Bicknell, George W.,—1897, 1898,  
 1899, 1900, 1901, 1902, 1903, 1904,  
 1905, 1906, 1907, 1908, 1909.  
 Bolles, Elizabeth Q.,—1895, 1896,  
 1897, 1898, 1899.  
 Bowen, Francis,—1850, 1851, 1853,  
 1854, 1856, 1857, 1868, 1869.  
 Bradford, Isaac,—1873,\* 1874,\*  
 1875,\* 1876.\*  
 Bradlee, Caleb D.,—1858, 1860.  
 Briggs, George W.,—1870.  
 Brine, George R.,—1876, 1877, 1878,  
 1879.  
 Brooks, Ellbridge G.,—1841, 1842,  
 1843, 1844.  
 Brooks, Lawrence G.,—1906, 1907,  
 1908, 1909.  
 Brown, Otis S.,—1879, 1880, 1881.  
 Buckingham, Joseph T.,—1841, 1842,  
 1843, 1844.  
 Carruthers, William,—1863, 1864.  
 Chamberlain, Frank C.,—1896, 1897,  
 1898.  
 Chamberlain, Henry M.,—1858.  
 Champlin, Edgar R.,—1899,\* 1900.\*  
 Chaplin, Winfield S.,—1890, 1891.  
 Chase, Carolyn P.,—1892, 1893, 1894,  
 1895, 1896, 1897, 1898, 1899, 1900,  
 1901, 1902, 1903, 1904, 1905, 1906,  
 1907, 1908, 1909.  
 Chase, Edwin B.,—1866, 1867, 1868,  
 1869.  
 Cheney, Edwin L.,—1905, 1906, 1907,  
 1908, 1909.  
 Child, Francis J.,—1863, 1864, 1865,  
 1868.  
 Church, Moses D.,—1884, 1885, 1886,  
 1887, 1888.  
 Clancy, William H.,—1892, 1893,  
 1894, 1895, 1896, 1897.  
 Clarke, Moses,—1848, 1849, 1850,  
 1851, 1852, 1853, 1854, 1856, 1857,  
 1858, 1859, 1862.  
 Coburn, Ellen M.,—1896, 1897, 1898.  
 Coburn, George A.,—1873, 1874,  
 1878, 1879, 1880.  
 Cogswell, Edward R.,—1869, 1870,  
 1871, 1872, 1873, 1874, 1875, 1876,  
 1877, 1878, 1879.  
 Conlan, Felix,—1887, 1888, 1889.  
 Conlan, John,—1882, 1883, 1884.  
 Cooke, Edward,—1862, 1863.  
 Coolidge, Austin J.,—1865, 1872.  
 Corcoran, Michael,—1884.  
 Counihan, Edward A., Jr.,—1907,  
 1908, 1909.  
 Cox, James,—1870, 1871.  
 Cushing, George A.,—1845.  
 Dalv, Augustine J.,—1904,\* 1905.\*  
 Dickinson, David T.,—1901.\*  
 Dow, James A.,—1874, 1875, 1876.  
 Doyle, William E.,—1884.  
 Draper, Martin, Jr.,—1867, 1868.  
 Edgerly, Caroline L.,—1889, 1890,  
 1891, 1894, 1895, 1896, 1897, 1898,  
 1899, 1900, 1901, 1902.  
 Edwards, Abraham,—1854.\*  
 Ely, Robert E.,—1899, 1900.  
 Emerton, Ephraim,—1886, 1887.  
 Fairbairn, Carrie S.,—1899, 1900.  
 Fairbanks, John W.,—1885, 1886,  
 1887.  
 Felton, Cornelius C.,—1849, 1850,  
 1851, 1852, 1853.  
 Finnigan, Patrick J.,—1885, 1886,  
 1887, 1888.  
 Fiske, John,—1869.  
 Fitzsimons, Philip M.,—1899, 1900,  
 1901, 1902, 1903.  
 Flint, Francis,—1883, 1884, 1885.

- es A.,—1881,\* 1882,\* 1883,\*  
 Francis A.,—1870, 1871.  
 Frank,—1877, 1878.  
 Robert O.,—1891, 1892, 1893,  
 895, 1896, 1897, 1898, 1899,  
 901.  
 th N.,—1898, 1899, 1900,  
 903, 1904.  
 Henry H.,—1889,\* 1890.\*  
 Massena,—1851.  
 Ellen A.,—1891, 1892,  
 894, 1895.  
 Frank,—1881.  
 William W.,—1867, 1868.  
 James D.,—1840, 1843, 1846,\*  
 1853,\* 1860,\* 1861.\*  
 B.,—1842.  
 win B.,—1874, 1875, 1876,  
  
 vard H.,—1885, 1886, 1887,  
 889, 1890, 1891.  
 nclin,—1859, 1860.  
 nes H.,—1867, 1876, 1877,  
 879, 1880, 1881.  
 es, M. W.,—1880.\*  
 d, John W.,—1867, 1868,  
 873.  
 aul H.,—1902.  
 Hamlin R.,—1868, 1869,  
 1871.\*  
 on, Henry F.,—1860, 1861.  
 ert Bushnell,—1891, 1892,  
 894, 1895, 1896.  
 , William,—1843.  
 William A.,—1872.  
 John L.,—1875, 1876, 1877,  
 882, 1883, 1884, 1885, 1886,  
 888, 1889, 1890.  
 Henry,—1872, 1873, 1874,  
 876, 1877, 1878.  
 Frederick W.,—1856, 1857.  
 Anson,—1840, 1841, 1842.  
 Anson P.,—1861, 1871,  
 873.  
 Nicholas,—1843, 1844.  
 Zelotes,—1850, 1851, 1852,  
 854.  
 i, Henry O.,—1859, 1860,  
 862, 1863, 1868, 1869, 1872.\*  
 Tracy,—1861, 1862, 1863.  
 Sanford B., (Secretary).—  
 889, 1890, 1891, 1892, 1893,  
 895, 1896, 1897, 1898, 1899,  
 901, 1902, 1903, 1904, 1905,  
 907, 1908, 1909.  
 eeman,—1884, 1885, 1886,  
  
 arah S.,—1880, 1881, 1882,  
 884, 1885, 1886, 1887.  
 George P.,—1891, 1892,  
 894, 1895, 1896, 1897, 1898.  
  
 Karr, William S.,—1873, 1874, 1875.  
 Kelley, Amasa S.,—1858, 1864.  
 Kelley, Joseph J.,—1898, 1899.  
 Kendall, Phebe M.,—1890, 1881,  
 1882, 1883, 1884, 1885, 1886, 1887,  
 1888, 1889, 1890, 1891, 1892, 1893,  
 1894.  
 Keith, Owen S.,—1840.  
 Kern, Francis V. B.,—1892.  
 Kingsley, Chester W.,—1860.  
 Kinsman, Ada R.,—1906, 1907, 1908,  
 1909.  
 Kronan, Edward J.,—1904, 1905,  
 1906.  
 Ladd, John S.,—1844, 1845, 1846,  
 1847, 1849.  
 Lancaster, Sherman R.,—1901, 1902,  
 1903, 1904, 1905, 1906, 1907, 1908,  
 1909.  
 Lansing, Jenny H. S.,—1897, 1898.  
 Leavitt, George R.,—1871, 1872,  
 1873, 1874, 1875, 1876, 1877.  
 Leverett, William,—1844, 1845, 1846.  
 Lew, James A.,—1904, 1905, 1906,  
 1907, 1908, 1909.  
 Livermore, George,—1847, 1848.  
 Livermore, George W.,—1840, 1841.  
 Livermore, John,—1843, 1844, 1845,  
 1871.  
 Longfellow, Alice M.,—1887, 1888,  
 1889, 1890.  
 Loomis, Grove H.,—1868, 1869, 1870.  
 Mallev, Edward B.,—1881, 1882,  
 1883, 1884, 1885, 1886, 1891, 1892,  
 1893, 1894, 1895, 1896, 1897, 1898,  
 1899, 1900, 1901, 1902.  
 Mandell, William J.,—1901, 1902.  
 Marsters, John M.,—1859.  
 Mason, Sumner R.,—1862, 1863,  
 1864, 1865, 1866, 1869, 1870, 1871.  
 McCurdy, C. L.,—1855.  
 McDaniel, Samuel W.,—1873, 1874,  
 1875.  
 McDuffie, John,—1860, 1861.  
 McIntire, Charles J.,—1870, 1871,  
 1872.  
 McKelleget, Richard J.,—1888, 1889,  
 1890.  
 McKenzie, Alexander,—1869, 1870,  
 1871, 1872, 1873, 1874, 1881.  
 McNamee, John H. H.,—1902,\*  
 1903.\*  
 McNeill, George E.,—1873, 1874,  
 1875.  
 Mears, David O.,—1869.  
 Mellen, W. R. G.,—1847, 1848.  
 Merrill, James C.,—1858, 1859, 1860.  
 Merrill, J. Warren,—1865,\* 1866.\*  
 Metcalf, Charles R.,—1842, 1843.  
 Mighill, Nathaniel,—1866, 1867.  
 Miner, George H.,—1869, 1870, 1871,  
 1872, 1873.

- Mitchell, Mary E.,—1893, 1894, 1895, 1896, 1899, 1900, 1901, 1902, 1903, 1904, 1905.  
 Montague, Samuel L.,—1878,\* 1879.\*  
 Morse, Asa P.,—1868, 1869, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1887, 1888, 1889, 1890, 1891, 1892.  
 Morse, James R.,—1854, 1855, 1856, 1857, 1858, 1860, 1861, 1862, 1865, 1866, 1867, 1868, 1869.  
 Munroe, William A.,—1869, 1870, 1871, 1872, 1873, 1877, 1878, 1879, 1892, 1893, 1894, 1895, 1896.  
 Murdock, John N.,—1866.  
 Muzzey, Artemas B.,—1840, 1841, 1842, 1850, 1851, 1853.  
 Muzzey, Henry W.,—1864, 1865, 1866.  
 Nagle, Garrett A.,—1884, 1885.  
 Newell, William.,—1844.  
 Norris, Albert L.,—1874, 1875, 1876, 1877.  
 Norton, Charles E.,—1855.  
 O'Brien, John.,—1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882.  
 Orcutt, William H.,—1877, 1878, 1879, 1880, 1881, 1882, 1883, 1885, 1886, 1887, 1888, 1889.  
 Page, William P.,—1856, 1857, 1858.  
 Paine, James L.,—1887, 1888, 1889, 1890, 1891, 1892.  
 Parker, Joseph W.,—1840, 1841, 1842, 1844, 1845, 1846, 1847, 1848, 1849, 1854, 1855.  
 Peabody, Andrew P.,—1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881.  
 Perkins, Frederick T.,—1850, 1851.  
 Pervear, Hiram K.,—1863, 1864.  
 Piper, William Taggard.,—189, 1892,† 1893,† 1894,† 1895,† 1896,† 1897,† 1898,† 1899,† 1900,† 1901,† 1902,† 1903,† 1904,† 1905,† 1906,† 1907,† 1908,† 1909.†  
 Powers, James F.,—1865, 1866.  
 Parmenter, Ezra.,—1867.\*  
 Rand, Benjamin.,—184  
 Raymond, Zebina L.,—1855,\* 1864.\*  
 Richardson, George C.,—1863.\*  
 Richardson, William Fox.,—1877, 1878, 1879, 1880, 1881, 1882.  
 Ripley, Ezra.,—1858.  
 Russell, Charles Theodore.,—1861,\* 1862.\*  
 Russell, J. Henry.,—1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909.  
 Russell, William E.,—1885,\* 1886,\* 1887,\* 1888.\*  
 Sands, Frank E.,—1905, 1906, 1907, 1908, 1909.  
 Sargent, John.,—1856,\* 1857,\* 1858,\* 1859.\*  
 Saunders, Charles H.,—1868,\* 1869.\*  
 Saunders, William A.,—1865.  
 Sawyer, Jabez A.,—1861, 1862, 1863, 1864, 1869, 1870, 1874, 1883.  
 Sawver, Samuel.,—1858, 1859.  
 Scudder, Horace E.,—1877, 1878, 1879, 1880, 1881, 1882.  
 Scully, Frank P.,—1883.  
 Scully, Thomas.,—1868, 1869.  
 Sharkey, Joseph E.,—1904, 1905, 1906, 1907, 1908, 1909.  
 Skinner, Charles A.,—1855, 1856, 1857, 1858, 1859, 1863, 1864, 1865, 1866.  
 Smith, Clement L.,—1882, 1883.  
 Somers, John E.,—1905, 1906, 1907, 1908, 1909.  
 Sortwell, Alvin H.,—1897,\* 1898.\*  
 Start, William A.,—1872, 1873, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892.  
 Stearns, William A.,—1843, 1844, 1845, 1846, 1847, 1848, 1849, 1854.  
 Stevens, Edmund H.,—1876, 1877, 1878, 1879, 1880, 1881.  
 Stevens, George.,—1851,\* 1852.\*  
 Stewart, Anne Clark.,—1890, 1891, 1892, 1893, 1894, 1895, 1896.  
 Stimpson, Herbert H.,—1868.  
 Stone, Arthur P.,—1901, 1902, 1903, 1904.  
 Taussig, Frank W.,—1893, 1894, 1896, 1897, 1898, 1899, 1900, 1901.  
 Taylor, Frederic W.,—1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900.  
 Taylor, John B.,—1852, 1853, 1854, 1855, 1860, 1861, 1862, 1863, 1864, 1865, 1866.  
 Thayer, Henry.,—1858, 1859.  
 Thresher, James M.,—1869, 1870, 1871.  
 Thurston, Charles H.,—1900, 1901, 1902, 1903, 1904, 1905, 1906.\*  
 Tilton, Henry N.,—1882, 1883, 1884, 1885, 1886, 1887.  
 Torrey, Henry W.,—1859, 1860, 1861, 1862.  
 Turner, Obed C.,—1882.  
 Tweed, Benjamin F.,—1881, 1882, 1883, 1884, 1885, 1886.  
 Twining, Kingsley.,—1869, 1870, 1871, 1872.  
 Tyler, Joseph H.,—1867, 1868, 1869, 1870.  
 Wadman, Theophilus G.,—1875, 1876.  
 Walcott, Henry P.,—1869, 1870, 1871, 1872, 1873.

Robert,—1901, 1902, 1903,  
1905, 1906, 1907, 1908, 1909.  
Imund,—1889, 1890, 1891.  
Walter C.,—1907.\*  
Henry W.,—1866, 1867.  
n, William W.,—1846, 1847,  
1849, 1850, 1851, 1852, 1853,  
1856, 1857, 1859, 1860, 1861,  
1863, 1864, 1865, and as  
ry from 1865 to 1887, 22  
h, James Frank,—1903,

White, Alphonzo E.,—1888, 1889,  
1890, 1893, 1894, 1895, 1896, 1897.  
Wilkinson, Nathan,—1852, 1853.  
Willard, Sidney,—1848,\* 1849,\*  
1850.\*  
Williams, Charles H.,—1903, 1904.  
Willis, Lemuel,—1843, 1844, 1845.  
Williston, Lyman R.,—1869, 1870.  
Wilson, John,—1878, 1879, 1880.  
Wyman, Charles F.,—1891, 1892,  
1893, 1894, 1895, 1896, 1897, 1898,  
1899, 1900, 1901, 1902, 1903.  
Wyman, Morrill,—1840, 1868, 1869.

Edwin B.; Superintendent of Schools,—1868, 1869, 1870, 1871,  
1872, 1873.

rell, Francis; Superintendent of Schools from September, 1874,  
September, 1905.

;, William C.; Superintendent of Schools since September, 1905.

k, Lelia A.; Supervisor of Primary Schools,—1892, 1893, 1894,

s, Mary A.; Supervisor of Primary Schools and Kindergartens  
ce March, 1895.

\*Mayor, chairman *ex officio*. †Presiding officer Office created in 1891.



## BOOKS OF INTEREST TO TEACHERS

The following list of books has been prepared by the librarian of the Cambridge Public Library, Mr. Clarence W. Ayer, for use by the teachers of the public schools. It is arranged to bring out special topics of teaching, and to include some of the representative aids to teachers in all subjects. Teachers are welcome to consult the books on the shelves in the stack.

## EDUCATIONAL, GENERAL

Allen. Home, school, and vacation. 1907 . . . . .	370.4-Al5
Ascham. The scholmaster. 1884 . . . . .	370-As23
Baker. Education and life. 1900 . . . . .	370.4-B17
Benson. The schoolmaster. 1908 . . . . .	370-B44
Boone. Science of education. 1904 . . . . .	370-B64
Briggs. Routine and ideals. 1904 . . . . .	370.4-B761
———. School, college, and character. 1901 . . . . .	370.4-B76
Butler. The meaning of education. 1898 . . . . .	370.4-B97
Butler, <i>ed.</i> Education in the United States. 2 v. 1900 . . . . .	370.4-B972
Chancellor. Motives, ideals, and values in education. 1907 . . . . .	370.1-C36
Comenius. The great didactic. 1896 . . . . .	370-C73
———. Orbis pictus. 1887 . . . . .	370-C731
Currie. Principles and practice of common school education. 188— . . . . .	370-C93
Davidson. Rousseau and education according to nature. 1898 . . . . .	370-D28
De Garmo. Interest and education. 1902 . . . . .	370-D36
Dewey. The school and society. 1899 . . . . .	370.4-D51
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SCHOOL COMMITTEE

1909







WILLIAM CLINTON BATES

**City of Cambridge**

**Massachusetts**

**ANNUAL REPORT**

**OF THE**

**SCHOOL COMMITTEE**

**AND THE**

**SUPERINTENDENT OF SCHOOLS**

**1909**





WILLIAM CLINTON BATES



**City of Cambridge**  
**Massachusetts**

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**ANNUAL REPORT**

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## SCHOOL COMMITTEE

1909-1910

---

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---

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---

Regular meetings of the School Committee are held on alternate Fridays, at eight o'clock P. M.

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## SUPERINTENDENT OF SCHOOLS

OFFICE, CITY HALL

VILLIAM CLINTON BATES

FRANK EDSON PARLIN . . . . . 3 Forest Park

### OFFICE HOURS

Office open: From 8 o'clock A. M. to 5 o'clock P. M., every week except Saturday; Saturday, from 8 o'clock A. M. to 12 o'clock M.

Superintendent's hours: Regularly from 4 to 5 o'clock P. M., every school day except Wednesday. Usually from 8.30 to 9.30 o'clock A. M.

acted at large.  
signed, October 22, 1909.  
ed. June 29, 1909.  
from September 1, 1909.



## REPORT OF THE SCHOOL COMMITTEE

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to the Citizens of Cambridge:

By a change in the City Charter which came into effect on April 5, 1909, the number of the School Committee was reduced from fifteen members to five. The new Board in assuming its duties found itself in a difficult position. Of the five members of the Board only one had been previously a member of the Committee. The Superintendent of Schools had just been seized with an illness which eventually proved fatal. The members of the new Board were therefore forced to meet the difficult scientific problems of modern elementary education without experience and without expert guidance. They are obliged to state these facts in order to account for errors of judgment and mistakes of method which have doubtless appeared in their action, and to afford hope of more efficient service in the future. Their difficulties were greatly lessened by the excellent work of their predecessors. The old Committee left the school buildings in good repair generally, and a large stock of supplies, in many cases sufficient to carry over the schools during most of the year, thus removing the fear of financial difficulty. The schools themselves were well organized, so that they continued in efficient operation, though without expert supervision, during the remainder of the school year. The intelligent advice of the officers of the old Committee had made matters easy for the new Committee; and the office staff proved everything that was good and devoted.

On October 22, Mr. Downey, one of the members elected at large, declined to accept the appointment as Superintendent of Buildings, and after that time the Committee consisted of four members only.

The Committee met fifty-one times during the year, besides several meetings in committee of the whole. The meetings are entirely informal, and it has not usually been found best to press a question to a vote until, after the fullest discussion, the members have come to be of one mind. As a result, the Committee has been harmonious and enthusiastic. It was apparent from the first that the small committee could not, like the old committee, do its work in sub-committees, nor divide among the members the oversight of the various schools. The members of the committee have therefore abandoned any effort them-

selves to supervise the teaching in the schools, and have placed upon the Superintendent of Schools the entire responsibility for administration and teaching.

## THE SUPERINTENDENT OF SCHOOLS

On account of the illness of Mr. William C. Bates, the Superintendent of Schools, the President of the Board was, at the meeting of April 5, authorized to act as superintendent during Mr. Bates's absence. He did, in fact, act as superintendent until September first, when Mr. Bates's successor assumed the office. Mr. Bates's illness, which had not at first been regarded as dangerous, became more serious from day to day, and he finally died in Hingham on the 29th of June, 1909, at the age of fifty-four years and eleven months.

Mr. Bates had been superintendent of schools in Cambridge since 1905. He was born in Hingham, May 29, 1854, graduated from Derby Academy, Hingham, in 1871, thence went to Phillips Exeter Academy and from that school went to Harvard College, from which he graduated with the degree of A. B. in 1877. After graduation he taught in grammar schools and in the high school in Hingham, was made superintendent of schools of Hingham in 1881, of Lawrence in 1891, and finally became superintendent of schools in Fall River, where he carried on the work successfully for eleven years, until he was called to Cambridge. In each successive year of his service in each of these places he was unanimously re-elected superintendent of schools by the School Committee.

Mr. Bates's career as superintendent of schools for Cambridge was short, but it was long enough for him to have become the friend as well as the leader and adviser of all those who had to do with the public schools, whether teachers or officers. As the former President of the School Board said of him, "His tact, good judgment and insight, together with his honesty and cheerfulness were unfailing. He was always on the watch for the bright side and his hopefulness and helpfulness were perpetually in evidence. By means of these qualities he introduced and carried through many improvements in the courses of study and the methods of teaching, particularly benefiting the pupils who were in need of special training and encouragement. His faith that everyone has good points which must be brought forward, while the weak spots are neither overlooked nor made conspicuous, was one of the secrets of his success. . . . He was a most



an, and made firm friends wherever he went: his aim through expressed by his favorite motto, 'Hearten.' " In Fall River, longest period of service was given, he was greatly loved. His ere at the time of his death spoke of his fine sentiment and his pathy. He could say a tender and comforting word, they said, it skill. He could touch the heart strings deeply. His on the great body of school children intrusted to his over- marked, and for good. He had an open heart for them all, s delighted with the greetings of the children, whether in their ildings or in the street. He was a friend whose heart was hand shake and in the shining of his eyes. Mr. Bates had in public speaking, and was a speaker whose services were equest and whose advice was widely sought and followed.

his death, the School Committee adopted the following s:

reas, An untimely death has removed from his sphere of service to education William Clinton Bates, Superintendent of Cambridge; and

reas, The School Committee desires to record its appreciation hful and intelligent work for the schools of our city;

ved, That in the death of William Clinton Bates the schools a valued head, the teachers a helpful and sympathetic guide l, and the city a useful and esteemed citizen.

ated in the schools of Massachusetts and at Harvard Uni- r. Bates returned tenfold his obligation to the schools of the wealth by his long and successful career as superintendent of Hingham, Lawrence, and Fall River, and by his shorter, s successful term of service in Cambridge.

ourn his death and the loss it involves to public education y.

ved, That these resolutions be spread upon the records of l Committee and that a copy be sent to his family."

onsequence of Mr. Bates's death it became necessary for the ard to secure a successor as promptly as possible in order ork of the next year might be begun under the direction of perintendent. The best advice available to the Committee t, and the qualifications of a considerable number of men were nvestigated by the Board. The most promising of the can- ere invited to appear personally before the Board and talk roblems which would meet the new superintendent. After areful investigation of this sort, the Board unanimously

selected, as Mr. Bates's successor, Mr. Frank E. Parlin, at that time Superintendent of Schools in Quincy.

During the three months of the school year, while the President of the Board was acting superintendent of schools, too much cannot be said in praise of the devotion of the teachers and the officials of the Board. Though the work was carried on without expert oversight, there was no lessening of care or skill in teaching or in the administration of the schools; and these closed for the year with a high record of faithfulness and devotion on the part of the teachers. The acting superintendent attempted during this time, so far as possible, to become acquainted with the teachers and with the organization and methods of the schools; and he and the whole committee derived much assistance and information from the advice and fruitful suggestions of the teachers. Having thus become familiar with the condition of the schools, the Committee was prepared to consider intelligently and to accept cordially the suggested changes brought to their attention by the new superintendent.

### MASTER EMERITUS

At the beginning of the year 1910, the Committee received the resignations of two masters, each over eighty years old, and with a record of long and distinguished service in the schools. Their services are described in the report of the Superintendent. To mark this unprecedented event, and to do honor to these deserving men, the Committee adopted the following rule:

"Any head master of a high school or master of a grammar school who has reached the age of sixty-five years and has served as such master for at least twenty years or as teacher in the Cambridge school for at least twenty-five years, may, upon his own request and at the discretion of the Committee, be retired from active service by an election as master emeritus, either without stipend or with such stipend (not exceeding five hundred dollars a year) as the Committee may from year to year determine.

It shall be the duty of the master emeritus to give such information, advice, and assistance with regard to the organization and management of the school in which he last served, as the Superintendent may request."

The Committee also adopted the following resolutions:

"The retirement of William F. Bradbury and Ruel H. Fletcher

from active connection with the schools of Cambridge completes for each a faithful and fruitful service of more than fifty years. As masters in two of our schools, they have had a large share in molding the characters and shaping the lives of two generations; and have well earned the ease and dignity due as a reward of well-spent lives.

The School Committee, desiring to note these remarkable careers and in some especial manner to approve and honor such lives and service, has created the office of 'Master Emeritus' and appointed William F. Bradbury and Ruel H. Fletcher as the first incumbents of this position."

It cannot but be regarded as a great honor hereafter to be placed on a roll headed by these two remarkable men.

### TRADE SCHOOLS

The subject of industrial education is discussed by the Superintendent in his report. During the present year a trade school for girls was established in Boston, and a number of Cambridge girls entered the school. Under the State law the city of Cambridge is obliged to pay their tuition, and under a ruling of the city solicitor the school funds must be used for the purpose. It may be a question to be determined in the near future whether the city would not do well to provide for those pupils in its own schools where it could control their attendance and conduct, and oversee their progress.

### TIME OF BEGINNING SCHOOLS IN THE FALL

The time of beginning schools in the fall had been fixed by the old Committee as September 8, which was about the time of beginning for most of the public schools in the metropolitan district. Vigorous objection to this date was made by some parents, who wished a later date fixed. It appeared, however, that since the length of sessions is fixed by law, a later opening in September meant a later date for closing the next June; and the weather at the end of June is quite as unbearable as in September, and comes at a time when all are wearied by the year's work. It appeared that only a few hundred children would be inconvenienced by opening at the time fixed, while many thousand children needed the regular employment and discipline of the schools. The Committee felt it undesirable to keep all the children at work in the heat of the end of June in order to accommodate a few who desired

a prolongation of the vacation in September, and therefore decided to alter the time fixed for opening.

### PURCHASE OF TEXT-BOOKS AND SUPPLIES

The new Committee on assuming office found on hand a stock of supplies for the schools, and it was not necessary to make any purchases except of text-books during the first half year. Purchases have in the past been made with judgment and at a very reasonable cost. But wherever purchases are made in the open market, there will be those who doubt the wisdom, at least, if not the honesty of the bargains made; and it appeared to the Committee desirable to have all large purchases of materials and all considerable contracts for repairs made upon formal written specifications and conducted after competitive bidding. They therefore passed the following

"When, in the administration of the department, supplies, materials, or labor are required, the estimated cost of which exceeds three hundred dollars, the officer of the Board, under whose direction the expenditure is to be made, shall prepare specifications therefor and submit them to the Board.

On approval of the Board, copies of such specifications shall be submitted to not less than three persons or firms who are prepared to furnish such supplies, materials or labor with a request for bids. The bids shall be in writing with copies of the specifications attached, and shall be submitted sealed to the Board for consideration; and no bid shall be accepted or liability incurred without the approval of the Board.

All bills for ordinary repairs, materials, or supplies shall be itemized so as to show the amount charged for labor and for each item of material or supplies."

Though this rule was not actually adopted until late in the year, several important contracts were made substantially in accordance with its terms before it was formally passed; and the Committee has reason to believe that there was some actual saving of money by use of this method, and also that it resulted in preventing any suspicion of favoritism or unwisdom on the part of the contracting officers. It is by no means a new method in the business of the Committee. Similar purchases have been made in a similar way from time to time for several years; but they have been so made in the past without being required by rule of the Committee.

## NEW SCHOOLHOUSES

Upon assuming office the new Board found a pressing need for new school buildings in East Cambridge and in that part of Cambridgeport between Massachusetts Avenue and the river. A new school in East Cambridge had been regarded as necessary for several years, and the School Committee had repeatedly so stated to the City Council. The difficulty was not so much an overcrowding of the schools as the unsafe and unsanitary condition of the old Thorndike School building, which was quite unfit for modern school uses. The Committee recommended either an enlargement of the Putnam School to make it possible to do away altogether with the Thorndike School, or else the erection of a large new building in the Thorndike district. The City Council accepted the latter alternative and made an appropriation, which, however, was not large enough to build a building of twenty-one rooms as asked for by the Committee, but only large enough to build a new building of substantially the size of the Thorndike School. Two primary schools in the Thorndike district are unfit for use, and it is the desire of the School Committee to include in the new building accommodations for the children of these primary schools as well as for those of the Thorndike grammar school. The need of such new accommodations was emphasized by a fire in the Lassell School. To remodel and rebuild that building, as should be done if it is to remain in use as a schoolhouse, will cost more money than the old building is worth, and the city will unquestionably save money by making the new Thorndike School large enough to accommodate the primary pupils now in the Lassell School. Under the new law the School Committee has the power of approval of both the location and the plans of the new school buildings. The Board was accordingly asked by His Honor the Mayor, to indicate where it desired to have the new Thorndike School located. It is the desire of the parents of the present pupils to build a new building on the site of the present school. This is a convenient location, but to re-build on that site would mean that the present building must be demolished; and while it is no longer suitable for a grammar school it is nevertheless a substantial brick building which would be worth many thousand dollars for other school uses. It would also be necessary to buy adjoining land; and upon investigation the Committee found that the cost of the land necessary for the purpose would be so large as to be almost prohibitive. It was therefore decided that the location of the school must be changed. Two locations were examined with great care by the

Board. One of them would give a well-situated lot of about thirty thousand feet, with a southerly exposure, on high land, at a cost of approximately one dollar per foot. The second lot is low, and would require the schoolhouse to be built on an artificial foundation, and the lot to be filled in. It is a little way from the center of the district, though the district itself is so small that this seems not important. It contains forty-five thousand feet and is easy of access and would cost only about thirty cents a foot. Expert advice was received to the effect that a school building could, without detriment of any sort, be built upon the lot. A majority of the School Committee advised the purchase of this lot rather than the other, being chiefly influenced by the fact that it would afford an ample playground for a large school building, and that it could probably be filled without expense to the city in connection with the work on the subway.

The other schoolhouse needed was in the present Webster School district. The difficulty in that district was one of over-crowding of the schools, as well as of unfitness of the school building. It was necessary to add several rooms to the present grammar school equipment in the district in order to accommodate the children now actually there. The present Webster School building is one of the oldest in the city, though it has been remodeled and enlarged. The original building has small and low-studded rooms, not well adapted to a modern school; and it is heated by furnaces, some of them directly under the wooden staircases, and all of them too near the ceiling and not sufficiently protected against the danger of setting fire to the building. The Committee decided that it was desirable eventually to replace the old building by a large new modern structure, and that the present needs could best be met by building one wing of such a structure at once, which could later be completed, but could for the present be used in connection with the old building. To that end it recommended the purchase of a small portion of land adjoining the present lot, and the building of a twelve-room wing of modern construction, which could be used as part of the Webster School. Several citizens of Cambridge urged objections to this plan. These objections were not presented to the Committee, but were brought to its notice through the Cambridge newspapers. The chief objections seem to be two: first, that it was not necessary at present to raise money for any school buildings; second, that if any buildings were now to be built, it would be better to build a separate new grammar school at a distance of about half a mile from the Webster School building in order to accommodate a population which it was expected would in future grow up in that part

the city. The School Committee felt itself unable to adopt either these suggestions. It felt that there was an immediate necessity for a new building, both to take care of the pupils now actually in the district and also to avoid the very great danger of fire from the condition of the present building. They did not feel that it would be wise to build a separate school rather than to enlarge the present Webster school. The best practice to-day is to have grammar schools of from twenty-four rooms to thirty rooms. Such schools can be more economically administered than smaller schools because of the less proportion of supervision required, and particularly because it makes possible a more careful gradation of the pupils so that each one of them can be assigned to a class of pupils of similar attainment and ability to proceed. The larger the school, the more perfect the gradation can be, and therefore the less time will be lost by pupils being obliged to keep time with those of different attainments and abilities. The Board therefore felt that this was a good opportunity to establish a school of larger size than the present grammar schools in the city. It was also apparent that it would be a very wasteful process to spend all the money that would be necessary to buy a large school lot in another portion of the district, and build a building in anticipation of a probable future population. If the population comes to occupy this other part of the city, it will be necessary then to provide school accommodations for it; but it is exceedingly wasteful to build buildings in advance of actual needs.

The Mayor appointed as the architect of the new Webster building, Mr. E. M. Wheelwright, of Boston, one of the most experienced and successful school architects in the country, who prepared a plan which in its general features was thoroughly satisfactory to the Committee. The construction of the building was then committed by the Mayor to the Superintendent of Buildings.

A sub-committee of the School Committee was appointed to act for the Committee in connection with the building of the schoolhouse. This Committee desired to examine the specifications and the working plans of the building; but it was refused the opportunity to do so, and the Committee was unable to get an accurate knowledge of the details of the plan until the building was actually in progress. It was then discovered that the plans did not call for a removal of the dangerous places in the old building, as the Committee had expected, but that it was planned to build a heating plant merely to heat the new portion of the building. Other smaller defects were also discovered in the plan as the work progressed. The Committee has called the attention

of the Mayor and the Superintendent of Buildings to these defects and hopes for a modification of the plans. This experience has brought up the question of the meaning of the new provision that the Committee should approve the plans of school buildings. The contention of the Committee is that all the details of the plan shall be submitted to it for approval. If the opposite contention is to prevail, the conditions of the construction of new schoolhouses are most unfortunate. While the School Committee is to occupy and use the buildings, the responsibility for their being properly planned and constructed will be divided between the School Committee, the Mayor, the architect and the Superintendent of Buildings. Such a divided responsibility cannot fail to result in unfortunate misunderstandings and defects. It is to be hoped that a more satisfactory result will finally be reached.

### SCHOOL HALLS

There is a growing feeling that the school buildings should be used for the benefit of all citizens of the city, so far as that can be done without interfering with the schools; and particularly that they should be used in the evening for public purposes, both educational and social. With this feeling the Committee has great sympathy; but unfortunately it has no money which can be devoted to this purpose without diverting it from the education of children, the purpose for which it is appropriated and for which it is sadly needed. Investigation made by the Committee shows that the evening use of a grammar school hall actually costs for fuel, light, and service, about eight dollars, and the use of a high school hall several dollars more. Besides this, the natural wear and tear caused by the use must be repaired by the Committee, and this, while not easily reckoned in dollars and cents, necessarily amounts to an appreciable sum. The Committee has under consideration rules for the use of the halls, and is determined to allow the use as generally as is compatible with the needs of the schools themselves.

### CONDITION OF SCHOOL BUILDINGS

Upon assuming responsibility for the schools, the Committee desired to make careful examination of the condition of the school buildings. Before time was found for this work a committee of the lately formed Public School Association undertook to do it, and a r



port on all the buildings except the high schools was prepared by Professors Charles W. Killam and William L. Mowll of Harvard University, architects. The Committee has been able to rely upon their exhaustive and most admirable report; and their conclusions have been freely used in the following:

## GENERAL CONDITION OF THE BUILDINGS

### 1. THE HIGH SCHOOLS.

Five buildings are used by the high schools: the English High School, the Latin School, the Administration and the Science buildings of the Rindge School, and the Washington building. With the exception of the Washington building, which is neither well-planned nor well-constructed, and was not built for high school use, these are modern and generally satisfactory buildings, well-adapted to their uses. No serious defects exist in lighting, heating or ventilating, or in respect to danger from fire. The present Latin and English High buildings, on account of the consolidation of the schools, should be connected by a wing, which was in fact contemplated at the time they were built. This wing, besides connecting the schools, would contain on the second floor the united libraries of the High and Latin School, and a teacher's reference library; and, out of school hours could be a meeting place for the teachers of the city. In the first floor could be placed the offices of the school committee, now occupying on grudging sufferance a few rooms in the City Hall which are needed for other uses; and the basement could be used for storing the supplies kept on hand for the use of the schools.

### 2. THE ELEMENTARY SCHOOLS.

These fall into several classes.

Most of the larger brick buildings have been built or completely reconstructed within thirty years, and are generally in good condition. They are all three-story buildings, with hall and large classrooms. They are the Ellis (1898), Fletcher (1903), Harvard (completely reconstructed in 1899), Houghton (1905), Kelley (1902), Morse (1890), Peabody (1888, enlarged 1898), Putnam (reconstructed in 1889), Roberts (1898), Russell (1896), Taylor (1895), and Wellington (one wing in 1907, the other in 1903, and the central portion completely reconstructed in 1909).

Most of the remaining brick buildings were built before 1880. Some of them are in fairly good condition. These are the Agassiz

(1875), Boardman (1868), Felton (1848), Parker (1893), and Sleeper (1894). They are all two-story primary school buildings, with rather small but not too small classrooms.

The remaining brick buildings are thirty-nine years old or more. low-studded, ill-lighted, without proper ventilation, with small rooms, and ill-adapted to modern school use. These are the Gore (1871), Merrill (1864), Otis (1859), Shepard (1856), Thorndike (1860), Webster (1856, enlarged 1885), and Willard (1870). Of these, the Gore and the Willard are better than the others, and may safely be used for many years. The Merrill is an exception to the above statement in that it is high-studded and has large rooms, but it was built for a high school, and is ill-adapted to primary school use. The Otis is in good physical condition, but too small for convenient use. The Shepard is capable of use for several years. The Otis, Thorndike, and Webster schools should be abandoned, so far as their present use is concerned, at the earliest possible day.

The wooden buildings are mostly old and ill-adapted to modern uses. They are all furnace-heated buildings. A few of them, however, can be continued in use for the present, if necessary. These are the Gannett (1886), Lowell (1883), Tarbell (1882), and Wyman (1871, enlarged 1886). The Bridge (1836), and the Holmes (1870) have been abandoned. The Corlett and the Cushing, two old buildings purchased from Belmont in 1880, and the Lassell (1880) recently damaged by fire, ought to be abandoned at once; and the Reed (1868) and Riverside 1860), besides being exceedingly poorly lighted, are in other respects barely usable, and ought to be superseded when possible.

Of the buildings mentioned as to be immediately abandoned, the Thorndike, Otis and Lassell should be superseded by the new Thorndike building, already authorized; and the new Webster will relieve the situation in that district. A new modern building to take the place of the Cushing and Corlett schools is seriously needed. The pupils of the Reed could perhaps be accommodated in the Sleeper, and those of the Riverside in the Houghton.

## LIGHT IN THE SCHOOLHOUSES

The report to the Public School Association, to which reference has been made finds, all schoolhouses inadequately lighted, and recommends that "all those classrooms which fall below sixty per cent

of the natural light which they ought to have should have additional windows inserted in their walls, or the schools should be abandoned and new schools built." The schools which require alteration or abandonment according to this recommendation are the following:

Agassiz (56% lighted)  
 Boardman (45% lighted)  
 \*Cushing (48% lighted)  
 \*Corlett (52% lighted)  
 \*Gannett (48% lighted)  
 Gore (50% lighted)  
 \*Lassell (41% lighted)  
 \*Lowell (44% lighted)  
 Putnam (10 rooms 52% to 56% lighted)  
 \*Reed (44% lighted)  
 \*Riverside (37% lighted)  
 Shepard (44% lighted)  
 \*Tarbell (44% lighted)  
 Thorndike (56% lighted)  
 Taylor (4 rooms 55% lighted)  
 Webster (old portion, 3 rooms 40% lighted, 9 rooms 52% lighted)  
 Wellington (2 rooms 57% lighted)  
 Willard (48% lighted)  
 \*Wyman (2 rooms 45% lighted)

Several dark rooms in the old Webster building have already been lighted by new windows. It would seem that steps should immediately be taken to increase the light in the Boardman, Gannett, Lowell, Shepard, Tarbell, Willard and Wyman schools, which have less than half the proper amount of light. The Thorndike will soon be abandoned, and abandonment of the Corlett, Cushing, Lassell, Reed and Riverside has been recommended.

## HEATING AND VENTILATING

The heating and ventilation of the modern brick buildings is in fairly good condition; they are heated by boilers, and ventilated by the gravity system. The Gore, Merrill, Shepard and Willard are also heated by boilers and have a system of ventilation. The other brick buildings are heated by furnaces; of those there is some ventilation in Agassiz, Otis, Parker and Sleeper. The Boardman, Thorndike and Webster have no system of ventilation. Of the wooden buildings, the Gannett, Lassell, Lowell, and Tarbell are fairly well ventilated; but the Cushing, Corlett, Reed, Riverside, and Wyman without ventilation. Of the poorly ventilated buildings the Thorndike is to be abandoned, the Cushing, Corlett, Reed and Riverside have been recommended for abandonment; and the Webster

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\* Wooden Buildings.

will be taken care of by the new addition. The Boardman, Sleeper and Wyman require attention.

### SAFETY FROM FIRE

The report referred to called attention to the fact that several of the schoolhouses had classroom doors opening in. The Committee has taken measures to have this defect rectified. The greatest danger of fire comes from the condition of the heating apparatus in the basement. One schoolhouse only—the Wellington—has the boilers separated from the rest of the building by fireproof walls and doors; and this is the only school building in the city of fireproof construction throughout. Nine other schoolhouses, all boiler-heated, have arrangements which could be made entirely satisfactory by extending brick walls and fireproofing the ceilings and doors. The twenty-three other buildings are quite unsatisfactory. The most dangerous are the Thorndike, with five furnaces, and the Webster, with eight. The heating arrangements in the Webster must be changed at once, and the Thorndike abandoned. The fire at the Lassell School proved that a small two-story building is not very dangerous in case of fire, although it is to be noticed that the building had four exits, and was better arranged than any other in the city for quick egress in case of fire; but changes in the heating arrangements should be made in the Agassiz, Boardman and Gannett schools, and the Cushing, Corlett, Lassell, Otis and Thorndike should be abandoned. Immediate changes are recommended in the nine boiler-heated schoolhouses, and in the Agassiz, Boardman, Gannett and Webster schools; and protection over the furnaces in all other furnace-heated buildings by stamped steel or metal lathed ceilings.

To make them at all satisfactory, this protection should be extended over the entire ceiling of the basement, and the doors at the head of the basement stairs should be covered with metal.

### REPAIRS AND ALTERATIONS

The Committee has spent a large amount of money on repairs during the past year; attention is directed to the report of the Superintendent of Buildings, which shows what repairs have been made during the year. The Committee has especially desired to have the walls of the schoolrooms tinted with a color which would preserve the eyesight of the pupils. Several buildings have never been tinted.

others needed retinting. The Committee, on the recommendation of the Superintendent of Schools and the Superintendent of Buildings, adopted standard tints for the walls and ceilings of schoolrooms, is proceeding as rapidly as possible to the tinting in these colors and all schoolrooms not now satisfactorily tinted.

### SCHOOL YARDS AND PLAYGROUNDS

The general plan of playgrounds for the city is or should be sufficient to provide means of recreation for the children of the grammar-schools out of school hours. But for out-of-door recreation during school hours, and for playgrounds for the smaller children, more is needed. According to the best expert opinion, a playground should be provided for each school, containing thirty square feet for each child, or about fourteen thousand feet for each room. It is more important that this space should be provided for the primary than for the grammar schools, since the ground is needed for the use of the children out of school as well as during school hours. Many of the schools containing children of the primary grades are already equipped with adequate playgrounds, or adjoin public parks which could be used for that purpose; but there are nine schools which seriously need additional playground room. To procure the land and equip them properly would cost about seventy-five thousand dollars; but this would be very well invested.

### IMMEDIATE NEEDS IN BUILDINGS AND GROUNDS

To recapitulate the immediate needs of the department in buildings and grounds, the following are pressing:

The reconstruction or alteration of heating arrangements in the Cassis, Boardman, Gannett and Webster schools, and fireproof enclosures for the boilers in all the boiler-heated buildings except the Arlington.

Improvement of lighting in the Boardman, Gannett, Lowell, Ward, Tarbell, Willard and Wyman schools.

Ventilation in the Boardman, Sleeper and Wyman schools.

A new wing connecting the high school buildings.

A new six-room school building in the Cushing district.

Additional playgrounds in nine schools.

Respectfully submitted for the Board,

JOSEPH H. BEALE. }

President.

## In Memoriam

WILLIAM CLINTON BATES

SUPERINTENDENT OF SCHOOLS

1905-1909

Died June 29, 1909.

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RICHARD H. GALLAGHER

TEACHER IN THE RINDGE MANUAL TRAINING SCHOOL

1902-1909

Died March 15, 1909.

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EULALIA L. HERALD

TEACHER IN THE THORNDIKE SCHOOL

1905-1909

Died March 20, 1909.

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ELLA E. BUTTRICK

TEACHER IN THE CAMBRIDGE SCHOOLS

1879-1909

Died October 31, 1909.

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JULIA S. GUSHEE

TEACHER IN THE CAMBRIDGE SCHOOLS

1881-1909

Died December 30, 1909.

## ***In Memoriam***

MARY A. O'HARA  
TEACHER IN THE WILLARD SCHOOL  
1899-1910  
Died January 21, 1910.

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EMMA J. YOUNG  
TEACHER IN THE TARBELL SCHOOL  
1883-1888  
PRINCIPAL OF THE TARBELL SCHOOL  
1888-1910  
Died March 11, 1910.

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GERTRUDE E. RUSSELL  
TEACHER IN THE RUSSELL SCHOOL  
1897-1910  
Died April 2, 1910.

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SUSAN L. KENISTON  
TEACHER IN THE CAMBRIDGE SCHOOLS  
1893-1910  
Died April 7, 1910.

## REPORT OF THE SUPERINTENDENT

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*To the School Committee of the City of Cambridge:*

Herewith I submit my first annual report, which is the forty-second in the series of annual reports by the Superintendent, and the seventieth of the printed reports of the School Board of Cambridge.

Having been with you so short a time, what I have to say is necessarily more of a confession of educational faith than of a report of work accomplished.

From the first, I have assumed that the people of this city desire the best public school system that can be had for the money expended upon it and that you expect me to recommend such modifications in its organization and administration as, in my opinion, will increase its efficiency. All thoughtful persons recognize the fact that the last step in educational progress has not been taken, that no system of schools is so good that it cannot be made better, and that most rapid progress and improvement will come through the hearty co-operation of all interested parties.

It is wise to recall from time to time the primary ends we are supposed to serve and the fundamental principles we are supposed to apply in our work, because we are apt to lose sight of them in the midst of many distracting details, or to neglect them in the presence of personal ambition, some novel theory or an alien but clamorous interest. It is only by recalling to mind these chief ends and fundamental principles that one can choose wisely his secondary aims, determine the best means of attaining them and be able to hold steadily on a course of appropriate action.

*The schools exist for the children.* They exist directly for the good of the children who attend them and indirectly for the good of the community. This seems axiomatic, if not trite, when stated; but, unfortunately, all persons who assent to axiomatic truths do not always apply them in their practice. The children are the ones to be served. What is best for them should be the constant consideration and the dominant influence in the organization and administration of the public schools. The good of the children should determine what kind of schoolhouses shall be built, where they shall be located



what playgrounds shall be provided, what courses of study shall be offered, what books shall be used, what teachers shall be employed, what methods of instruction shall be approved, and what shall be the character of the school government. The welfare of the children cannot be made too prominent. Their interests are everywhere involved and only those persons who can appreciate these interests and will loyally serve them, should have part either in the teaching or in the management of the schools. Sometimes conditions are such that it is impossible to give the children the best service—money for adequate accommodations, for desirable equipment or for first-class teachers, is not available—and sometimes it is necessary to sacrifice somewhat the interests of individuals to the good of the whole, but even such a sacrifice should not be made too readily. Often careful thought or insistent courage on the part of some responsible person will find a better way. In the past, especially in the graded schools, the needs and rights of the individual pupils have been too much disregarded.

The schools are not only for the children, but they are for *all* of the children and should offer equal opportunities to all. This means that each pupil is entitled to consideration, and that there should be no favorites. A school system which suitably trains only a part of its pupils while it sadly fails with the rest, which gives the boys an appropriate education but the girls a very inadequate one, which confines itself to purely intellectual or academic training, neglecting the physical development and motor training of its pupils, or which is satisfied with knowledge alone, leaving the feelings and the will undeveloped and untrained, fails at important points. It should be as careful in its plans and as generous in its provisions for the preparation of some pupils for business or mechanical occupations as it is for the preparation of others for college. It has been the custom to deal with pupils in mass and to reduce them to averages which usually represents very few members of the school. The time has finally come for the consideration of the real boys and girls, and to deal with the pupils as individuals. Doubtless it will be impossible to meet all the needs of each, but the needs of a larger number than at present may surely be met. The individual method of dealing with pupils possesses important merits,—it deals with actual conditions, meets the real needs and, by caring for the individuals, leaves no mass to be considered. Children differ widely in their endowments and the school must adapt itself to these differences, if equal opportunities are to be given to all. The needs of the bright pupil are not the same

as those of the dull pupil, nor those of the pupil who can remain in school only a short time the same as those of the pupil who can complete a full course. The foreign-born and the native-born children, the strong and the frail, the normal and the exceptional, present other differences. Each is entitled to the best service the school can render him, regardless of his present condition or his future prospects. There should be no favored classes and no favored schools. The work in the several schools may differ somewhat to meet the varying conditions, but a school not good enough for every district of the city is not good enough for any district. The differences between the schools should be a difference in the *kind* of work rather than in the *quality* of work. The public schools must always be democratic in spirit and in effort, encouraging neither class distinctions nor social differences. If special favors are to be given, they should be given to the specially unfortunate. The efficiency of a school must be measured by what it does for all its pupils, not by what it does for a few. The number who become discouraged and drop out of the course, indicates quite as accurately its worth as a public institution as does the standing of its graduates. The school does not exist for the reputation of its teachers, although in the last analysis the reputation of the school and the reputation of the teachers must rest upon the same foundation. The teachers who aim directly at their own reputation are apt to be short-sighted and to overlook some important obligations to their pupils; while those, who constantly study to help their pupils, do not need to think of their reputation. It will be appropriately cared for by an ever-increasing number of appreciative pupils and parents.

From the preceding it follows as a corollary that the child should not be sacrificed to the school system. It is not enough for the school to meet the needs of a large majority of the children. It should not wrong any child. If, in the judgment of the competent, a custom or rule of the school stands in the way of the educational welfare of a pupil, the pupil's interests should prevail. The courses of study and the methods of instruction should be flexible enough to meet the needs of all normal children, and then adequate provision should be made for the abnormal or exceptional. To keep these children year after year upon work they cannot do, or to send them out of school, is not a satisfactory solution of the difficulty. It is no solution at all, only a proof of the inadequacy of the system. The community, not only for the sake of the unfortunate children themselves, but for its own sake, must recognize its obligation to the defective classes and provide such educational means as will conserve their meager endowments. Both

humanity and economy call for such action. It takes us a long time to learn the value of one talent and our duty to improve it. Sometime every community will see that, for all concerned, education is better than charity.

The most important part of the public school system and the part which should be the last to suffer from lack of funds or from poor teaching, is the elementary schools. These are for all the children and their work is indispensable. They lay the foundation for all subsequent schooling and place in the hands of every normal child the keys to greater knowledge. Although not all that should be included in the elementary course of study, reading, writing and reckoning are fundamentally important and should be well taught. Health, physical development and motor training should receive more attention in the lower schools than they have received. Too often these schools are deprived of much-needed accommodations or equipment in order to enlarge the opportunities in the high schools. The high schools could be made as good as possible, and should offer all reasonable advantages, but their development must not be at the expense of the elementary schools. Good high schools are desirable but good elementary schools should be regarded as indispensable. The one is for hundreds of children, the other is for thousands, most of whom can never go beyond the course here offered. It is here that the greatest needs exist, and the greater numbers can be helped. The pupils who are unable to complete even the elementary course are entitled to as much consideration and to as good opportunities while they are in school as those who can go to college. If there must be overcrowding, lack of equipment, a narrow course or poor teaching, let it be elsewhere, not in the elementary schools. They should be the first to be improved, the first to enjoy the fruits of ample means and the last to suffer from lack. An efficient school system must be strong throughout. The natural and best way is to develop it from the bottom. An ample foundation is the wisest preparation for an elaborate superstructure. Thoroughly good elementary schools are not only of prime importance themselves, but they are the essential condition and best promise for first-class secondary schools. By this order all interests are best preserved.

Again, the children have a right to have the best available teachers. The interest the children take in their school work, the advancement they make in their studies, and the character of their conduct and habits, depend so much upon the ability and influence of their instructors that the selection of teachers is a most important function.

requiring not only professional skill but conscientious action. Who ever knowingly secures the appointment of an inferior teacher, when a superior one is available, betrays the children and proves his unfitness for such an important trust. Here, as everywhere in school affairs, the good of the children should weigh more than all other considerations. Teachers should be selected solely because of their merits as teachers,—their fitness to do the required work. To sacrifice the educational interests of forty or fifty children to the advantage or convenience of one person is unreasonable and inexcusable. No true friend of the pupils or of the schools can desire the appointment or urge the retention of an incompetent teacher. Neither nepotism, political influence nor any other form of favoritism has any proper claim here. They are an impertinence and a menace, and those who resist them deserve both the gratitude of the children and the support of all right-minded citizens. Every candidate for the high and responsible position of teacher should present his qualifications and rest his case upon them. He should be honestly and fairly considered upon these qualifications, without any thought of irrelevant matters. Those who have little, except "pull" or "influence," to recommend them have a very poor claim to serious consideration and should wait until they can offer more appropriate qualifications. The qualification to teach involves much more than scholarship, essential as that is. There must be professional training in the art of teaching; natural adaptation in health, taste, temperament and personality; understanding and love of children; character and manners suitable for the example and worthy of the imitation of pupils. The influence of the teacher—the silent tuition of the school—is a much more potent educational factor than is generally supposed. In fact, with *whom* a child studies is quite as important as *what* he studies. There can never be a good school in charge of a poor teacher. The best schools are always found to be in charge of the best teachers. Teaching at its best is a profession no less difficult and no less important than law or medicine, and those who enter it should be fitted both by nature and by training for their responsible work. Therefore, teachers should be selected with care and assigned with wisdom, for few teachers are fitted for all positions. Not every person who desires to teach should be allowed to do so, because not a few of them lack some of the most essential qualifications. Residence is not a qualification. Other things being equal, preference may properly be given to local candidates, but other things should be equal without any lowering of standards in favor of local candidates. The cry of "local schools

for local teachers" is usually raised by the friends of incompetent teachers or for some other interest than that of the schools. Most parents and true friends of the schools would say local schools for local children in charge of the best teachers to be had. Here, again, the rights of the children are paramount and should be maintained. The same principle holds in case of those who have been good teachers and have done excellent service but, on account of age or infirmities, are no longer competent to meet the reasonable demands of their positions. They have served the community faithfully and well, and deserve from it considerate and generous treatment, but the community should not try to discharge its obligations to them at the expense of the children. Justice to one party ought never to mean injustice to the other.

One of the chief aims and most important functions of the public schools is to prepare their pupils for citizenship. Nearly every class in the public schools is made up of children representing very different standards of home-training and very different types of character. There are those from intelligent and happy homes in which they have been kindly treated and judiciously trained. While they have been required to perform their duties as children, they have been allowed to enjoy all the rights as children. They are obedient, respectful and industrious. They are neat in person, regular in attendance, satisfactory in conduct and friendly in their attitude toward the teacher and the school. Sometimes they are slow but they are willing to do their best. Under the influence of the school their habits continue along the same wholesome lines as at home, because they are already accustomed to the standards required. The school simply confirms and enforces the teachings of the home. There is another group of children who have received too much attention but too little training. They have been humored and petted beyond measure, but have never been taught obedience nor required to observe the common amenities of life. They have exercised petty tyranny over the household all their lives. They are selfish, wilful, saucy and disobedient. Usually they are hard to interest, spasmodic in effort, easy to take offence, and are apt to sulk or create a scene when their will is opposed. Such children are likely to carry home exaggerated or misleading, if not absolutely false reports, of what has been said or done at school. The "spoiled child" is one of the hard problems for the teacher. He generally makes a trouble before he yields cheerful obedience to the reasonable and necessary requirements of a well-ordered school. He does not find it easy to adjust himself to the new conditions, to obey instead of to

command, to do what he prefers not to do, to be regular, polite, and kind. The child is not so much to blame as those who have allowed him to form his bad habits. But, in his case, if the parents will only do their part, the kindness, patience and firmness of the teacher will work a reform without abusing the child in any way. A third group of children is made up of those who have been neglected. They have been fed and clothed more or less suitably but have never been subject to proper parental care or control. They have run wild and been a law unto themselves. When they come to school, it is necessary to introduce them to new standards of conduct and of manners at nearly every point—personal habits, speech, thought and deportment. To change the current of their lives and to transform them into neat, industrious, self-respecting young men and women is not easy but possible for the right kind of a teacher. In fact, a large per cent of these children, who remain in school, are trained into respectable and law-abiding citizens, in spite of the unpromising beginning and the outside conditions. Then there are the children who have been abused—who have been cuffed and kicked about all their lives, who, because of parental abuse, have learned to believe the world unkind and everyone their natural enemy, especially those in authority. They are timid, suspicious, sly and deceptive, or ugly, mean, callous and defiant. They expect to be whipped for every mistake and regard kindness as indicative of weakness. Often they seem to find pleasure in practicing upon others tyrannies similar to those from which they have themselves suffered, and to regard detection, or "being found out," the only regrettable thing about bad conduct. They do not understand kindness and fair play, and why should they? They interpret the world aright as they have met it. But when such children come in contact with a strong, sympathetic, sensible, even-tempered teacher, a new experience comes to them, a strange feeling springs up in their minds and they begin to know the meaning of kindness and friendship, of right and truth, of justice and honor. They are born into a new world—the world of love and goodness and happiness—and the transformation of their characters begins. The most potent influence in the training for good citizenship is a strong, just and kind school government, whose kindness and justice are clearly visible in its strength. It develops respect for duly constituted authority and obedience to properly established law. It not only tends to produce self-governing, self-respecting and law-abiding citizens, but it gives the pupils right notions of the functions of government and correct standards of justice, courage and integrity. There are always a few boys

who cannot respect law and authority until they have tested them and proved their efficiency. These boys should be protected from their own weakness and mistaken notions. A school government which encourages or tolerates disobedience, insolence or defiance on the part of any pupil, is unkind to the pupil and a menace to the community—unkind because it fosters offensive and harmful habits, which are sure to interfere seriously with the usefulness, happiness and success of the pupil in later years, and a menace because it really trains the child in lawlessness and in contempt for all government. A boy who is deliberately and persistently disobedient and defiant should promptly meet with a force sufficiently strong to check him in his headlong career and exact full obedience. He needs to be controlled until his own reason gets a hearing and he can control himself. Open defiance of the teacher's authority and deliberate violation of the rules of the school, call for prompt and effective action. A boy who has gone so far wrong as to assault his teacher with vile and profane insults and dares her to use physical force in defence or punishment, is temporarily, at least, beyond the reach of moral suasion. He is spoiling for a whipping. It is the only thing that he can fully appreciate, and that will make him amenable to reason. In such a case, corporal punishment is far better in every respect than suspension or a court record. It is the only appropriate thing and there should be no delay. Corporal punishment is an exceptional measure and must be used with wisdom and without anger. But to forbid its use in the public schools is to increase largely the worse offences, to encourage boys in a vicious course, and to make it almost or quite impossible to save some of them from their own lawlessness. This whole discussion is prompted by a sincere love of boys and is made entirely in behalf of those few who need a strong friend at a critical time in their lives. No child should be allowed to become a common nuisance and to wreck his future prospects from lack of proper control during his school days. The schools are for the children and even the unruly boy should find there the thing he most needs. The boy, who habitually disregards all rights and defies all authority in his youth, is not likely to become a self-respecting, law-abiding citizen in his manhood.

The children also have a right to be housed, while at school, in buildings which will endanger neither life nor health—buildings which will not easily take fire and from which there are ample exits, buildings provided with suitable light, adequate means of ventilation, proper sanitary accommodations and are kept in clean and wholesome condition. Moreover, they should be adapted in design and by

environment to the work of a school, and should be equipped with all necessary means of doing that work in an appropriate and satisfactory manner. So much, at least, the children have a right to demand. Much more is required to meet all their needs. The buildings should be attractive in design and in construction. The interior arrangement should be convenient, the finish in good taste, the furniture hygienic and comfortable. The tinting of the walls, the color of the shades and the character of the decorations, should be appropriate and in harmony with all the rest. There should be an assembly hall large enough to accommodate the entire school and a playground near by, where every child may find regular exercise in the sunlight and open air. The influence of the school building with its furnishings and surroundings has rarely been fully appreciated. From his school environment there comes to every child silent but positive tuition. He does not know it, but his tastes are changed and his standards of beauty and fitness are modified by these things, nevertheless. There is also an ethical value. An old, dark, dingy building with dilapidated furniture and long-neglected grounds is not only a depressing influence upon the children but an inciting cause of much mischief and disorder. All public buildings should embody the fullest knowledge and the best tastes of the community, invariably possessing the qualities of economy, safety, convenience and neatness.

The first requisite of an efficient school system is a good organization — an organization which places a competent person in every position, assigns him his field of duty, gives him all necessary freedom and holds him responsible for results. In such an organization there is a proper distribution of functions. Every duty is assigned to some one but the same duties are never assigned to more than one person—the entire field is covered but there is no overlapping. Each knows his place, what is expected of him and to whom he is responsible. The School Committee confines itself to legislative and financial duties, determining what shall be in the schools and how the available funds shall be expended, but delegating executive and supervisory functions to professional experts. It is the duty of each supervisor to outline the work and direct the teaching of his special subject so as to secure satisfactory results under existing conditions, acting under the direction of the superintendent and co-operating with the principals. Each building is organized into a harmonious and efficient whole, under one head, who has general charge and supervision of the entire school, including all persons employed and all work required. The supervising principal sees that the several parts



the building are in suitable condition for school use, that the daily program of each room is well arranged, that the various subjects are properly taught, that the requirements from the pupils are just and reasonable, that the spirit and method of government are kind and wholesome, and that the regulations of the School Committee are carefully observed. He keeps in close touch with each class, advises and assists the teachers when necessary, settles all serious matters of attendance or conduct, and is the person through whom all communications between the school and the central office or between the school and the homes represented, are made. He is given much discretionary power, is held responsible for the work of the school and judged by its efficiency. During school sessions little of his time is given to clerical work. It is devoted largely to teaching and helpful supervision. A principal should never allow himself to become a mere office boy. If qualified for his position, the time he spends in the classrooms, inspecting and inspiring the work of the pupils, and with his teachers in constructive criticism and in kindly suggestions, will best prove his professional ability, will yield the greatest returns to the children, and bring the greatest credit and satisfaction to himself. The teachers are directly responsible to the principal.

One spirit and purpose should pervade the entire system. Everyone should understand that education is its constant business and that business-like methods are to be expected in its management. Goodwill, helpfulness and hearty co-operation should be found everywhere among both teachers and pupils. Peevishness, scolding, worrying and faultfinding should be banished. And all should feel that a sound professional judgment presides over all school questions, especially those involving directly the welfare of the teachers and the children.

Finally, an efficient school system must be a living organism, always growing and developing to meet the needs of the everchanging social and industrial conditions of the community. An excellent school for one generation is usually not well adapted to the next. The aim of all education should be life, power and efficiency — life, broad, deep and full; power of body and of mind; efficiency in thought and in action—these to the capacity of each individual. But the conditions of life, the kinds of power and the expressions of efficiency, which have satisfied all demands upon us, are not likely to satisfy the demands which will be made upon our children. There must be progress or deterioration. It seems to be the universal law and schools no ex-

ception. But progress means more than motion. It is quite as important to know which way to go as it is to move. Under normal conditions, changes in the character and methods of education would be gradual, new factors slowly coming in and old ones slowly disappearing, while certain factors necessarily remain constant. The educational needs of this generation should be carefully studied and such changes in the present school system be made as will best meet those needs, condemning nothing merely because it is old and approving nothing simply because it is new. What *has* been may be respected until it stands in the way of what *ought* to be, then its going should occasion no regrets. That education is best which best prepares young men and women to put most into life, and to get most out of it, which enables them most completely to discover and develop their latent powers, whether of hand or of brain, and which most increases the pleasure and efficiency of their service.

## WILLIAM FROTHINGHAM BRADBURY

record of Mr. William Frothingham Bradbury, who resigned head mastership of the Cambridge Latin School last December, so remarkable as to call for more than the usual notice at this

one years ago last December, in an old red schoolhouse on side of Little Wachusett mountain in the town of Princeton, Mr. Bradbury began his work as a teacher. Although vowing as he walked that winter a mile to and from his boarding that he would never teach again, he taught five months in a boarding school and one term in the Westminster Academy preparatory college.

After having thought of going to college before May, 1852, he entered Amherst College in August of that year without any special preparation. He worked his way through college by teaching winters, graduated as valedictorian of the class of 1856, his brother being also a member of the same class.

After graduation, never having been seen by the school committee in Cambridge, he was elected teacher of physics and mathematics in the Cambridge High School at a salary of nine hundred dollars and entered upon the work of this position on Monday, September 1, 1856. There were five teachers, two men and three women, and a hundred pupils at that time. Early in April, 1857, the master of the school having died, Mr. Bradbury was appointed acting-master for the remainder of the year. On November 10, 1865, he was elected Classical Teacher, which position he continued to hold for twenty-five years.

In April, 1881, Mr. Bradbury was elected head master of the High School. On March 1, 1886, when the school was divided, he was appointed head master of the Latin School, but at the same time held head mastership of the English High School until the following year.

For more than fifty-three years, Mr. Bradbury has served as a teacher, and for thirty-three years as the head of one of its important schools. During that time he has been active in social and other organizations, serving most acceptably in positions of honor and trust. He is an ex-president of the

Middlesex County Teachers' Association, of the Massachusetts Teachers' Association, of the Massachusetts Schoolmasters' Club, and of the American Institute of Instruction; secretary and treasurer of the Classical and High School Teachers' Association since its organization in 1868, treasurer of the Teachers' Annuity Guild since its foundation in 1893, a director of the Handel and Haydn Society for twenty-two years, secretary of the same society for ten years, and now its president. He served in the common council of this city for the years 1883 and 1884. He is the inventor of several school appliances and the author of many well-known text-books in mathematics.

On his retirement from the head of the Latin School, Mr. Bradbury, in recognition of his long and honorable career, was made Master Emeritus of the Latin School. Few teachers have been so widely and so favorably known. He will continue to enjoy the unfailing confidence of hundreds of his graduates scattered over the face of the earth, and the deep respect of thousands of the citizens of Cambridge, all of whom wish him many years in which to enjoy his friends and his well-earned leisure.

## RUEL HASSELTINE FLETCHER

Another veteran to retire this year from active service in the public schools of Cambridge is Ruel Hasseltine Fletcher, who was born Cornish, N. H., May 16, 1829.

He was educated in the public schools of his native town, the Newport, N. H., High School, Kimball Union Academy and the New Hampton Institute. Years later he took courses in geometry, physics and physical geography at Harvard.

At the age of twenty he taught his first school at Newport. Subsequently he taught one winter each in his native town, in Hartford, Vt., and in Canaan, N. H., and two winters in West Newbury, Mass. He began teaching in his first permanent position in March, 1854, at Abington, Mass., where he remained two years, resigning to accept the principalship of the Coddington School at Quincy.

In December, 1857, he was called from Quincy to the master-ship of the Otis School in this city. It was a small wooden building on Otis Street. This building was destroyed by fire in 1858 and was soon replaced by a brick structure. In 1860 the Thorndike School was built and Mr. Fletcher was placed in charge of it the following year. The building was remodelled in 1875 but has long since been inadequate to meet the demands of the district. From the master-ship of the Thorndike School Mr. Fletcher resigned last December to take effect January 1, 1910, having completed sixty years of teaching, fifty-two of them being in Cambridge. On the evening his resignation was accepted he was unanimously elected Master Emeritus of the Thorndike School. While yet in active service the city paid Mr. Fletcher a rare tribute by naming in his honor one of its large grammar schools, thus giving expression to the universal respect and esteem which he is held.

Perhaps no description could more clearly reveal the character of the man than does his letter of resignation and his letter in reply to the notice of his election as Master Emeritus which follows:—

"To the Superintendent of Schools:

I hereby tender my resignation as master of the Thorndike Grammar School to take effect January 1, 1910.

I have been a teacher in public schools sixty years, and fifty-two of these years have been spent in the Thorndike School.

My fondness for the work of teaching is still unabated, but the infirmities of age come on apace, reminding me that I must soon cease from active service, and make way for a younger master, who perhaps will be in closer touch with modern ideas and methods of instruction.

Be assured that I shall most regretfully take leave of the school that I love so dearly, and for whose welfare I have labored assiduously these many years.

To school committees, superintendents, and associate teachers past and present, for their uniformly hearty support, as well as for their many kindly manifestations of appreciation and good-will, owe a debt of gratitude that I only too gladly acknowledge, but can never fully repay.

Trusting that the Thorndike School, under a new administration and occupying a much needed new school building, amply equipped with all necessary modern conveniences, will take on new life, and become even more prosperous in the future than it has been in the past, I am, believe me,

Most sincerely and gratefully yours,

(Signed) RUEL HASSELTINE FLETCHER.

“To the School Committee of the City of Cambridge:

Of the many manifestations of appreciation and good-will shown to me by school committees during my fifty-two years of service as master of the Thorndike School, my election as ‘Master Emeritus’ has touched me most deeply.

It will be an enduring satisfaction for me to realize that my ‘life-work’ has been such as to win general approval, and that I am deemed worthy of an honor so signal.

No words of mine can fitly express my sense of gratitude for your kindly act.

I thank you with all my heart.

Sincerely and gratefully yours,

(Signed) RUEL HASSELTINE FLETCHER”

## THE HIGH AND LATIN SCHOOL

When it became known that Mr. Bradbury intended to retire from head of the Latin School, it seemed advisable for several reasons to unite that school and the English High School under one headmaster. The two buildings being so close to each other, the government and administration of a single head seemed both possible and desirable. With one school it is thought that the several departments of instruction can be better organized, avoiding the duplication of departments, offering equal opportunities to all pupils, and reducing unnecessary expenses. The union will also prevent unwholesome comparisons, claims of superiority or inferiority, or social distinctions which should have no place in the public schools.

As the consolidation and the revision of the courses of study will be completed until next September, the time to speak of results has not come. It is wiser to await the demonstrations of experience rather than to prophesy. Our desire and expectation are that it will prove for the best interests of all concerned, especially of the boys and girls.

## GRADATION AND PROMOTION

This question of the proper gradation and promotion of pupils has long been one of the most troublesome connected with the graded schools. Our imperfect methods have not only been the occasion of much dissatisfaction on the part of parents and of great discouragement and loss on the part of pupils, but of great cost to home-taxpayers. Every child has a right to expect that his classification will be according to his ability and that his advancement will be as rapid as his health and industry will warrant. Generally the classification and promotion of pupils have been governed by the supposed ability of that mythical member of the class known as "the average pupil," and so the progress has been too slow for the bright pupils and too rapid for the dull ones. Thus, by requiring the same amount of work from all, rather than from each according to his ability, some lose interest and form indolent, if not mischievous habits, because they have not enough to do, while others lose courage and acquire a dislike for school, because their powers are overtaxed and

they do not understand their work. With few exceptions, children enjoy school and are enthusiastic workers so long as they understand what they are doing, find ample scope for their best effort and sufficient variety for all their powers. But when the conditions are entirely changed, they soon lose heart. Much that is attributed to the dullness or indifference of the children is really due to our own stupidity or neglect. Under the usual plan, the class is kept together in all its work until the end of the year, when a large part of it is promoted to the next grade and the rest kept back to repeat the work, often to do no better the second year than they did the first. To a child, a year is a long time, and he is apt to lose courage and become resentful when told he must review for such a period, especially if he did his best the first time. And the child is not the only one who has reason to complain, because, by this plan, the schooling of every child, who repeats a year's work, increases by just so much the cost of the schools and the burden of his support. That is, if the annual per capita cost of the schools is \$33, every time a pupil repeats a year it costs the taxpayers \$33 more than it would have cost had he been promoted, and, at the same time it adds to the expenses of his parents another year of his support. The only way to avoid these results is for the child to leave school a year earlier than he otherwise would, which is even worse than repeating the work. These items may seem small in the case of a single pupil, but if a thousand fail to be promoted, it means an additional expense of \$33,000 to the city and much more than that to the families concerned. Thus it will be seen that the non-promotion of large numbers of pupils becomes not only an important educational matter but a serious economic question, to say nothing of the effect it may have upon the subsequent lives of the pupils themselves. Of course it will be impossible to eliminate repeating entirely, because, after doing all we can to reduce it, causes over which we have no control will continue to operate, such as sickness, unavoidable absence and incapacity to do the minimum amount of work.

Another plan to obviate the difficulties is to allow the slower pupils to fix the rate of progress and to give the quicker ones a double promotion from time to time. But this plan is open to serious objections since the pupils who receive double promotion omit the work of an entire grade and so break the proper continuity of their work. They advance faster not by doing more work than the others in a given time, as they should, but by omitting part of it. The result is their powers are never fully exercised and their knowledge of the several subjects is scrappy and defective.



Various schemes of combining individual instruction with class teaching have been tried and, in the hands of competent and enthusiastic teachers, have been successful to an encouraging degree, but they soon reach their limitations in the large classes of a city system. The chief advantage of individual instruction is that it gives the right kind of help just where it is needed and, at the same time, allows the rest of the class to be working independently, which is by no means an insignificant matter. Too often in class-teaching the whole class is kept waiting while the teacher is assisting a single pupil. This not only leads to much restlessness and inattention but means a tremendous waste of time in the aggregate.

Perhaps one of the best methods of solving the problem of graduation and promotion is the so-called "Cambridge plan" by which the brighter pupils may accelerate their progress without omitting any of the work, and the slower pupils may not advance too rapidly.

A	B
24	18
8 23	17 6
22	
21	16
7 20	15
19	
18	14 5
6 17	13
16	12
15	
5 14	11 4
13	10
12	9
4 11	8 3
10	
9	7
3 8	6
7	5 2
6	
2 5	4
4	3
3	2 1
1 2	
1	1

It is unnecessary to give the details of this plan. The following modifications seem to avoid some objections to the original plan and also to present several new and desirable features. The accompanying figure will aid in describing and in understanding the proposed scheme. The basal course, marked A, covers a period of eight years, the work of each year being divided into three grades, or twenty-four grades in all, each grade covering the work of about three months. There is a parallel, or supplementary course, marked B, covering the same work in six years. In it there are eighteen grades, the work assigned to each grade being one-third more than to each grade of the basal course. That is, pupils in the supplementary course are expected to do *nearly* as much in six months as those in the basal course do in nine; or, stated from the other side, pupils in the basal course are required to do only two-thirds as much work in a given time as those in the supplementary course. In each course, there are three promotions a year. If a pupil fails to do the work

his grade satisfactorily, he is required to repeat for only three months, at the end of which time he has another chance for

promotion. If he is in the supplementary course and fails to keep up, he may be transferred to the basal course with a maximum loss of only two months. Once each year the transfer may be made with the loss of only one month, and once each year without any loss of time whatever. Pupils in the basal course, who are able to do more work than is required of them there, may be transferred to the supplementary course at any time by repeating at most two months' work. Beginning with the third grade, the transfer may be made at the end of every fourth grade by reviewing the work of one month. At the end of every fourth grade the transfer can be made without any review. Thus it is possible by passing from one course to the other to vary the rate of progress to meet a great variety of needs and to do it without omitting any subject and without loss of time. The shortness of the grades and the frequency of promotions are likely to improve attendance and to stimulate effort. The period of review for those who fail to be promoted is not long enough to dishearten the pupils, or drive them out of school. In three months there is always another chance. This seems to them and to their parents quite different from a year, and so they go to work with new determination and increased effort. Moreover, the reviews always come at the end of short periods, before the pupils have lost the impressions received from their first study of the subjects. The second impression is made before the first is obliterated, either by the length of time or by a change of subjects.

The feature of this plan which is likely to impress many unfavorably at first, is the assignment of more than one grade to a room, except in large buildings. But further consideration may reveal some compensating advantages. Generally, teachers occupy too much of the time and attention of their pupils, giving the children too little time for study and the preparation of their work. There is so much teaching that the children do not learn how to study, so much explanation and help that they do not acquire independence and the power to master difficulties alone. After the teaching, assistance should be given only in individual cases, not to the whole class. If the whole class needs it, either the teaching has been inefficient or the work is too hard. There is also too much lesson-hearing or recitation and too little lesson-preparing. Pupils should be taught how to prepare their lessons — how to use books, where to find the information desired, how to pick out the essential matter and how to arrange it in orderly form. When there are two or more grades in a

room, the upper grades learn much in review from the lower ones, while the lower grades in turn learn much from those in advance.

Under this plan children may be admitted to the first grade at any time during the year, provided they are at least six years of age and that there is an outlet into the high school twice a year for those who have completed the course. This seems not only desirable but possible. It will close up the break between the grammar and high schools, and allow pupils to pass uninterruptedly from one to the other as soon as prepared, just as he has passed from grade to grade in the elementary school.

### KINDERGARTENS AND PRIMARY SCHOOLS

The kindergartens of this city are unusually good and the average ability of the kindergartners unusually high. We have here an educational agency far too valuable to neglect. That the kindergarten has reached perfection in its development is not apparent to many of its friends. To these friendly critics there seems to be need of a little less sentiment and a little more science in the study of children and in the arrangement of the kindergarten program. There are some very good reasons for believing the nature and condition of the young child are quite different from what most kindergartners seem to think, and that his greatest needs are also quite different. The spirit, devotion and enthusiasm of the kindergartners are right and exceedingly valuable, but some of their instruction and methods are open to improvement. During the kindergarten period of the child's education his imperative needs are predominantly physical. Healthy growth is *his* all-important business, and to provide for him suitable conditions for such growth is ours. These must include the open air, abundant sunlight, much free play and a rich and varied field for sense experience. The sessions of the kindergarten should generally be out-of-doors, and, when in-doors, should be devoted more largely to the characteristic activities of children. There should be less confinement and less instruction, more sensory and motor exercise, more freedom and spontaneity; less of school and more of real child-life.

In the primary schools a few modifications have been made in the required work. Less time is given to number and more to language. The most important change, however, has been in the daily program of the first grade.

When the School Committee of Cambridge authorized one session for the first grade, it acted in harmony with the best educational

thought of the day and in harmony with the best interests of the children. New England is the only part of this great country in which little children are sent to school at the age of five years or less. In the hustling west and even in the belated south, they are not admitted until they are six, at least. In this case, we are not as wise in our practice as in our laws, because the legal age for entering school is seven, not five.

The introduction of the one-session plan was made very easy for two reasons, first, because a very large majority of the parents favored it, and second, because in many of the districts the overcrowded condition of the rooms made it almost necessary. Rarely does misfortune work so much good. Before the end of the fall term, the average number of children in the first grade rooms was over fifty, a condition forbidden by reason and should be by statute. To tolerate such a condition is not only to abuse pupils and teachers but to squander vital energy and to sacrifice educational efficiency. No teacher can properly care for and suitably instruct fifty pupils of this grade or of any grade. Such a class must be divided into four sections, which means that the teacher is working with one-fourth of the class while the remaining three-fourths are sitting in their seats, waiting for their turn and busying themselves as best they can. That is, the children are under the immediate instruction of the teacher about one-fourth of the time and are necessarily left to themselves the rest of the time. What of value can the poor little things do? They must not play or make a noise for that would disturb those at work with the teacher. They can only sit still or dawdle over so-called busy-work, until their turn with the teacher comes. It is little less than criminal to keep a five or six-year old child sitting at a school desk four or five hours a day. It is very hard for a healthy child of that age to sit still for any considerable length of time under any conditions. He lives and grows and learns through action, but becomes fatigued and dull by sitting still. For him to become tired through normal activity is beneficial, because it promotes development, but for him to exhaust his energies trying to inhibit action retards growth. The child's position at the desk tends to compress his chest, diminish respiration and interfere with digestion. The blood pressure in head and lungs is too great, while the heart and extremities of the body need the pressure caused by muscular activity. Any treatment of the child, which tends to check the growth of heart and lungs or to impair his digestive and circulatory systems, strikes not only at his health and vitality, but at his happiness and usefulness. If there are to be strong men and women

to the world's work; if there are to be steady nerves, clear brains, firm muscles, they must be served by large lungs, good digestion, a strong circulation. Nature, at this period of the child's life, is much more intent upon physical than upon intellectual development, much more concerned in making a good animal than in making a great scholar. She enters her everlasting protest against drawing blood from the extremities of the child's body and sending it to the head, against confining his growing muscles for hours in an uncomfortable seat, against positions which tend to deform his pliant bones, against compressing heart and lungs, against his inaction and the disturbance of his nutrition. If nature's protest were heeded, there would be less headache, anaemia, dyspepsia, tuberculosis and morbidity during later life. There would be better eyes, better nerves and better health, better tempers, better habits and better success in life.

These, briefly stated, are some of the reasons why little children should not be confined in a schoolroom four or five hours a day. By the one session plan they are there only half as long, but receive just as much instruction as they did under the two-session plan. Each class is divided into two sections, one attending in the morning, the other in the afternoon. By this arrangement the teacher has only half as many pupils at any time; these pupils receive twice as much of her time and attention; they are fresh, interested and attentive; they work under the constant guidance of the teacher; and, best of all, they have regularly an unbroken half-day for free play out-of-doors. Although the children are in school only half-time, they do full work. In fact, they do more and better work, because they work intelligently and to some purpose while there, and because they work under more favorable conditions. The air is better, there is less confusion and loss of time, the teacher has less to distract her attention and to dissipate her energies, she teaches more effectively, the pupils are more alert and work more rapidly, mental impressions are more vivid and lasting, all enjoy school better and go home less fatigued. At first some fears were expressed that the afternoon pupils would play so hard during the forenoon that they would come to school tired and dull, and that the afternoon work would be much inferior to the morning work, but nothing of the kind has happened. The afternoon pupils having had their play come wide awake, ready to do their work as promptly and as successfully as the morning pupils. In order, however, to be perfectly fair and to give equal opportunities to all, the two sections change places at the middle of the year, the morning section coming in the afternoon and the afternoon section coming in the morning. One

needs only to observe the two plans in operation to be convinced that, for these children, one session is better than two, and that it is quite as satisfactory in practice as in theory.

Following is the report of the Supervisor of Kindergartens and Primary Schools, whose good sense, cheerful spirit and efficient service I desire to commend:

A year ago the Aldine method of reading was introduced as an experiment in teaching the class entering the first grade in March.

So satisfactory were the results and so great was the enjoyment of the little children in the stories and pictures that all the September classes were started by this method. The primer delights the children, and when it is reinforced by a thorough teaching of phonics, they are able to read readily in any books of similar grade. Oral reproduction is much more spontaneous than formerly; and the dramatization of the stories gives the children freedom and confidence in their oral reading.

The sprightly text and suggestive pictures of the other Aldine readers have had a beneficial effect on the reading in the second and third grades. The recently revised and enlarged list of readers comes at an opportune time. They will add greatly to the interest and lend a needed variety to the practice in reading.

Much may be hoped from all these helps, as well as from the increased time allowed to reading by the reduction of the number program in the second and third grades, and its omission from the first grade. The teaching of phonics is more thorough and systematic. This has increased the children's power of self-help and made silent reading profitable and enjoyable. While reading has always been made the foremost subject in the primary grades, the reduction in the time spent in developing and memorizing number has left not only more time but more attention to devote to reading and language, with a very marked improvement in the results.

The introduction of a spelling-book has awakened an enthusiasm on the part of both teachers and pupils for a subject now put into concrete and systematic form. It has also elicited many expressions of cordial welcome from the parents. As much time and effort as possible is given to oral as well as to written language. This is especially noticeable in the first grade. The penmanship, though generally neat, is not altogether satisfactory. The children in many cases are so seated that it seems impossible for them to write well and sit properly at the same time. Many of the youngest children take their writing lessons on the blackboards, but the blackboards are too high in several of the rooms.

a important source of uplift in the first grade is the plan of but half of the children come each session. The shortening of the time to stay in school has almost eliminated the need of discipline in the rooms. Little children are always eager for their work for a time; and only when fatigued do they show symptoms of wilfulness and a disposition to interfere with their neighbors. The additional light and better air are also potent factors. It is to be hoped that the drawback to this plan, and the only objection to it on the part of the parents—the difficulty of allowing the children to be out-of-doors without the protection of their older brothers or sisters, — will be met by the early equipment of suitable playgrounds under proper supervision.

Should these be supplied, the first grades would be working under ideal conditions. At the present time the work in the one-session schools, where the plan was first tried, is well up to the average of the city.

The kindergartens have had a prosperous year of growth and development. The program has been so modified that much more play and especially much more out-of-door freedom has been afforded the children. The results are excellent, although the visible effects of industry have decreased somewhat. If sand-boxes could be provided in the school yards or in nearby parks, the teachers would be enabled to further extend the out-of-door program and also provide better conditions for using the sand than can be had in the schoolroom. The opportunity for a kindergarten garden in each school yard would be a valuable aid. Little children, with the encouragement and supervision of their teachers, are wonderfully patient and persistent workers, and they are not cast down by failure like older children. The kindergarten garden pleases them quite as well as the old.

There is no falling off in membership or enthusiasm in the mothers' meetings.

The mothers show a thoughtful understanding in all that they do as to their children's welfare; while their generous contributions to the adornment of the kindergarten rooms is evidence of their intelligent and affectionate interest.

The number of mothers' meetings held during last year was one hundred and eight, and the subjects brought before these meetings were of interest and of permanent value. The number of visits made by the teachers to the homes of the children was four thousand five hundred and five. There is a very close and a very gratifying relation maintained between the home and the kindergarten.

There is need of providing playgrounds for the small children not in school—especially during the morning session. The

kindergarten children would also be greatly benefited by having a safe place to which they could resort for play and entertainment in the afternoon.

The Cambridge Kindergarten Association is a valuable help to the progress and uniformity of the work. At its bi-monthly meetings the latest ideas in the education of very young children have been presented and discussed, as well as lectures on general literary topics. This club is a voluntary organization and is supported by the kindergarten teachers.

Year by year these teachers hope to send to the first grade many children who are able to observe, to express themselves and to respond to direction. In the case of foreign children the training in English is of the greatest value to the work in the primary schools.

In conclusion, I wish to speak of the loyalty and devotion to the interests of the children displayed by the teachers of primary schools and kindergartens during a most trying period last year, and to acknowledge gratefully the aid I received in my work through their cordial co-operation.

### WELLINGTON TRAINING SCHOOL

This school was designed to do an important work for itself and other schools of the city. The intention seems to have been to receive students of good general education and of promising ability, who had some professional training, and to give them for a year a thoroughly practical course in the art of teaching under close and helpful supervision. The plan is a good one so long as all of these conditions are realized. It is of prime importance that the persons received into the training class possess both the natural and the acquired qualifications of a desirable teacher. They should be good scholars, have adequate professional training, be naturally adapted to teaching, have good health, and possess character and manners worthy to be the example of children. They should be carefully selected from the most promising graduates of college, normal and kindergarten training schools. Those, whose qualifications are such that they cannot secure or retain positions elsewhere, should not be accepted. The school is for training persons who already have the requisite qualities of a good teacher. It has no power to create those indispensable physical and mental attributes—health, magnetism, force, sympathy, cheerfulness, originality, good sense and love of the profession, — which mark the dif-



ference between a good and a poor teacher and without which success is hardly possible.

Sufficient salary should be offered the members of the training class to induce first-class candidates to apply, and then the year's work should give them the best possible experience as a preparation for regular positions in the city schools.

Many of our best teachers are called away each year to other cities and good teachers are needed to take their places. Unless such are secured, the general average of our corps will constantly deteriorate until mediocrity or worse becomes the prevailing characteristic. Without a good corps of teachers, an efficient school system is impossible. Much, therefore, depends upon the training school and the practice students who are admitted to it. The same principles should govern the selection of these students as govern the selection of teachers, the first consideration being, what is best for the children.

The report of the Master of the Wellington School follows:

This school was opened in September, 1884, and differs from the other schools in this respect—all the grades, except the eighth and ninth, are taught by young teachers. Their work, however, is done under the immediate supervision of a master and three assistants, who are held responsible for the instruction and management of the school. For several years the seventh grade has been taught by a graduate of the training class.

The object of conducting a school on this plan is to give Cambridge young women who desire to teach, and who have made special preparation for the work, an opportunity to gain experience under conditions favorable to their own success, and without prejudice to the interests of their pupils.

Graduates of the English High School or of the Latin School, who have also graduated from one of our State normal schools, are preferred candidates for the position of teacher in this school. Other persons of equal preparation may be appointed.

The required term of service is one year. Teachers are appointed on probation, and may be excused or dismissed at any time by the master, with the approval of the superintendent.

No teacher is considered a graduate of the school until she is admitted to the graduate class, which is known as Class B.

The money compensation for the first three months, and until satisfactory service is rendered, is at the rate of \$200 a year. For the remaining part of the year it is at the rate of \$250.

Graduates temporarily employed as teachers in this school are

paid at the rate of \$300 a year. Graduates selected to act as substitutes in any school are paid at the rate of \$450.

That the direct influence of the school may be continued, it is the duty of the master, or one of the supervising teachers, occasionally to visit the schools of the graduates who are teaching in Cambridge. The school contains all the grades of the grammar and primary schools, and a kindergarten.

By the Rules of the School Board the superintendent is authorized to employ as many substitutes and temporary teachers as may be necessary to take the places of absent teachers. These teachers are usually assigned to the Wellington School, when not otherwise employed, that there may be at this school a sufficient number of teachers to make it practicable for the members of the training class to visit other schools.

During the year covered by this report, more difficulties occurred to upset the school than usual. The classes had to be distributed to three school buildings away from the district, and four classes had to be crowded into the assembly hall of the Wellington School. The confusion in the home school was augmented to an almost unbearable degree by the noise incident to tearing away the old building which had been partially destroyed by fire, and in building a new structure to take its place. School work done under such conditions is far from satisfactory, and the school suffered in every way through a long period of confusion which extended from February, 1908, to the beginning of the school term in September, 1909, over a year and a half.

During 1908-1909, sixteen young women were admitted to the probation class of the Wellington School. Of this number, five were college graduates, seven were graduates from normal schools and four were graduates of the kindergarten training schools. All of these young women remained during the year, and, with one exception, are now teaching. Eleven have been appointed to regular positions in the Cambridge schools, three are employed as substitute teachers in the city, one is teaching in the Wellington School and one is at work in the college library.

The only time the school hall was used during the year for entertainment purposes was on the evening of June 15, when the ninth grade graduated. The class left as its gift to the school, a set of the New International Encyclopædia in twenty-two volumes. As this class was deprived of the use of the assembly hall in raising money with which to purchase its gift, a debt was incurred which the class promised to liquidate when the hall should be available for their use. This

se has been kept and the debt has been paid. After paying off debt, the class had enough money left to buy a stand for the large nary, a bust of Shakespeare, and several other small things for e of the ninth grade room. There are still remaining about seven s in the treasury which the class has voted to spend to make the still more attractive.

One debate on the question,—Resolved, that Lincoln was a greater actor to his country than was Washington,—was given by the grade to which the eighth grades were invited. This was a success and resulted in a score for the affirmative. William C. , Superintendent of Schools, Reverend Robert Walker and ence G. Brooks, Esq., acted as judges.

The Wellington School continues to fulfil the object for which it into existence, and it expects to be able to do even more efficiently ork of furnishing to young persons who desire to teach, and who made special preparation for the work, the opportunity of gaining ience under favorable conditions and without prejudice to the sts of their pupils, in its commodious, well-equipped new building, was completed and occupied on September 11, 1909.

Twenty-five young ladies were admitted to the entering class in mber, 1909, and, with one exception, they are still connected the school.

n October, the Anti-Cigarette League of the Wellington School, an interesting meeting, which was addressed by Mary I. Vinton Herbert H. Bates of the school, and Stanley R. Oldham from ambridge Young Men's Christian Association. As a result of this ng, several new members were added to the league.

One evening in October, a meeting under the auspices of the c School Association, was held to consider what can be done for ackward children. The speakers of the evening were Dr. Fernald e institution for the feeble-minded at Waverley, and Frederick B. pson, master of the Putnam School of this city.

Every Monday morning the pupils of the eighth and ninth grades ble in the hall for opening exercises. After devotional exercises usic, a short talk, illustrated by the stereopticon, is given by one e teachers or by the master of the school.

At Christmas time every child in the school went to the hall ite poems, sing songs appropriate to the time, and to enjoy an tainment with the stereopticon.

The Wellington Mothers' Club has held monthly meetings in the kindergarten rooms. At each meeting entertainments of an esting nature have been provided.

The first quarter of a century in the life of this school has passed into history. May it be able to meet with even greater success in the years to come, than it has in the years that have gone, is the wish of one who has been at the head of the institution from its beginning.

## MUSIC

At this time, I do not feel prepared to express an opinion in regard to all of the work in this subject.

Singing, under right conditions, is a most valuable and healthful exercise, and should receive careful attention in every grade. It is the natural expression of a happy mind and enjoyment is a necessary accompaniment, if the best results are to be secured. Children always like it, when the instruction is inspiring and adapted to their powers. Perhaps there is no other school exercise in which the feelings are so largely involved and sympathetic relations between teacher and pupils are so important a factor. The teacher must not only know and appreciate music, but must have the good-will and confidence of the children as well.

The report of the Director of Music follows:—

The New Educational Music Course is used by the regular teachers in the primary and grammar grades, under the supervision of the director of music and his assistant. In the high schools, the music is conducted by the director. Every pupil who is capable of learning to sing is required to give attention to the subject.

In the Latin, English High, and Rindge Manual Training schools forty-five minutes a week are given to the study of musical form and expression as found in choruses, quartettes, etc., from the standard oratorios and operas.

Elementary harmony, counterpoint, and composition have been introduced as elective studies for the first and second classes, and boys as well as girls having a special aptitude for music naturally elect these studies, the only requisite being some knowledge of the piano-forte. Pupils of the fourth year in the English High School may elect harmony in place of astronomy, and those intending to go to a normal school are advised to take the course in harmony.

Two periods of fifty minutes each week are devoted to instruction in scale formation, intervals, and a logical and comparative view of all true chords, in order to give them the power to construct and resolve these chords for themselves.

The study of harmony is carried well into modulation, and the study of counterpoint through the four simple orders or species including both the major and minor modes.

In the Rindge Manual Training School the young men are taught to sustain their parts, without accompaniment, in compositions of four part harmony (first tenor, second tenor, first bass and second bass) the music being selected and arranged for this purpose.

A glee club for young ladies at the English High School, one for young men at the Rindge Manual Training School, and an orchestra for young ladies and young men at the Latin School are a source of enjoyment and benefit to such as can give the time for practice.

Fifteen minutes a day in the primary and grammar grades are devoted to this study; and pupils in the grammar grades are taught to sing and sustain their parts in reading compositions in two, three and four parts.

Memorizing music is a feature in all the grades, and in the graduating exercises it is expected that the music by the pupils will be sung without notes. To this end rote singing in all the grades forms a part of the instruction. A list of the "Songs We Know" is written upon the blackboard in sight of the pupils, and when new ones are learned, they have the pleasure of adding to the record of their musical possessions.

On the afternoon of May 18, 1909, pupils from the ninth grade, assisted by the high school orchestra, gave a musical festival in Sanders Theatre; and under the leadership of the director of music, presented the following program:

# May Festival

OF THE

## NINTH GRADE PUPILS

Of the Public Schools of Cambridge Assisted by  
the High School Orchestra in Sanders  
Theatre on Tuesday, May 18,  
1909, at 3.30 P. M.

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### PROGRAM

March—"Inspection"	<i>C. W. Bennet</i>
ORCHESTRA	
Hymn to Music	<i>Air "Glorious Apollo"</i>
Overture "Lustspiel"	<i>Keler Bela</i>
ORCHESTRA	
(a) Song of Spring	<i>Eduard Lassen</i>
(b) Prayer from "Der Freischütz"	<i>Weber</i>
(a cappella)	
Farewell to the Forest	<i>Mendelssohn</i>
(a cappella)	
Excerpts from "Faust"	<i>Gounod</i>
ORCHESTRA	
(a) Rocked in the Cradle of the Deep	<i>J. T. Knight</i>
(a cappella)	
(b) Chorale from "Passion Music"	<i>Bach</i>
Message of the River, arr. from "Sonata Pathétique"	<i>Beethoven</i>
(a cappella)	
The Star-Spangled Banner	<i>John Stafford Smith</i>

THE AUDIENCE IS INVITED TO JOIN IN THE CHORUS

The director respectfully suggests that an amount of money be annually applied to supplying new music in the high schools, so that the enthusiasm and interest be maintained; that a proper cabinet for keeping this music be placed in the libraries or other places convenient to the halls; that arrangements be made to have an experienced piano-forte tuner tune all school instruments twice a year, after the fires have been started in the autumn and after they are out in the springtime, and that the halls or rooms where instruments are located be kept at a temperature not lower than 60° Fahrenheit. This would protect the instruments and be an advantage to the city.

### DRAWING

Much more should be made of this subject in the High and Latin School. Good courses in both free-hand and mechanical drawing should be offered. The whole time of one teacher can very profitably be employed in this department, and provision should be made for such a teacher next year.

Having every reason to believe that this subject is well-outlined and supervised, I submit, without further comment, the following report of the Director of Drawing for your consideration:

The present plan of the course in drawing and art study had its beginning in 1896-1897. At that time the School Committee voted to discontinue the use of drawing books and to make changes that would bring the study of color into proper relation with other subjects, for example, designing and nature study.

Since that time there has been a tendency to simplify the course by eliminating topics that seemed of the least importance, and to make prominent subjects that are of vital interest in every day life.

By means of a progressive arrangement of lessons and problems, the pupil is lead on through the several grades, along lines of fundamental art principles towards a definite end. The aim is for the attainment of artistic skill, and the power to appreciate beauty in art and in nature as far as possible. This skill and power to appreciate beauty finds its best development in drawing,—drawing from objects, drawing from memory, drawing from imagination. To draw well is appreciation of the thing drawn. These efforts should include nature drawing, designing and decoration of objects, mechanical drawing and lettering.

How deeply it is practical to enter into these subjects in the elementary schools the existing conditions will largely determine, for example,—the powers of the children, the equipment of materials

and models, the lighting of the rooms, the amount of time, etc. The time allowed for this subject in the primary and grammar grades is about four months of school time. This would be a very short time in which to attempt an elaborate art course but not too short for some valuable achievements. Our teachers have been very successful in carrying out this course. They have voluntarily sacrificed much of their time to make themselves proficient in the work. Their genuine interest finds enthusiastic response in the children throughout the schools.

For a large majority of the children, drawing and art study terminates with the grammar school. The opportunity for continuing the subject in the English High School has been much improved this year. Here is carried forward to a higher plane some of the ideas that were started in the lower grades. The course here is in the formative stage and can readily be given the trend and fullness desired. Modeling and drawing from life are worthy subjects for the high school. Some practical forms of applied art, such as leather work, should be encouraged.

Two days of my time each week are given to the English High School and three days to the work in the grammar schools. The number of pupils in my high school classes is fifty-six. These take art as an elective study and nearly all of them have two lessons a week. Miss Jennison, the assistant in drawing, gives half of two mornings each week in the English High School. The pupils in her class take drawing as a required study in the domestic science course. The remainder of Miss Jennison's time is given to the primary schools and to some of the fourth and fifth grade classes.

The Evening Free-hand Drawing School has had a good attendance in the advanced class, but the entering class has not been as satisfactory in regard to attendance as in former years. For a number of years the attendance in the drawing classes has been rather small. The decline dates back to the time when the wood working and machine shops were opened for evening work, and when other drawing classes were formed elsewhere in the city. The quality of the work this year is fully as satisfactory as in any previous year.

Miss Jennison urges that colored crayons be supplied to the primary grades on the ground that children can be taught form best in connection with color. Many of the teachers would like the crayons because they make pretty work and because they are used in other towns. Others think the crayons would add greatly to their troubles because they break so easily.



Colored crayons would be valuable in place of colored tablets. They are now used in the primary color lessons and also for decorations. It would be quite an item of expense to supply all the lower grades, but if it was done in one or two buildings when the colored tablets become worn out, it would give time for observation. It is desirable that the tinted paper now used for construction cutting should be of a larger size and of a different color. Additional scissors are needed for this work. Each building should have at least one complete set of fair quality.

Hard and soft pencils are needed for the different kinds of drawing, such as geometrical drawing, shading, etc. In all the grades, except the sixth, only a soft pencil is furnished. It would scarcely be so expensive if a hard pencil was also supplied in the other grammar grades. It is no small task for a teacher to sharpen the pencils for thirty or fifty pupils with an ordinary knife. There should be one or two pencil sharpeners of good quality in each building.

Much trouble and material would be saved if each room in the grammar grades was supplied with a set of palettes. At present one is used by three and in some buildings by four classes. It is about twenty years since our aluminum palettes were put in use, and most of them are still serviceable. If each teacher was responsible for a set it would probably last fifteen years. Likewise compasses for the lower grade should be supplied for each room. There is considerable difficulty in keeping a set of compasses in working order when used by several classes. There should also be one or two extra sets in each building for the use of the upper grades.

A change in the quality of the rulers when new ones are purchased is so desirable. Paper rulers may be worth considering for the lower grades.

The fittings in the drawing room of the high school are inadequate for the large number that use it day and evening. Lockers for the use of the pupils could be built against the walls below the blackboards. This would remedy the unsightliness of boards placed against the walls around the room.

The need of some new casts has been felt for a long time. Both day and evening classes would be benefited by a few well-chosen ones. In nature drawing much difficulty is experienced in securing specimens in some sections of the city. If the park commissioners could be prevailed upon to permit the teachers to use the prunings, perhaps some of the flowers it would greatly facilitate the nature lessons. This has been granted to the English High School for a

number of years. What would be still better would be the raising of suitable flowers for spring and autumn lessons on the school grounds. This would stimulate the interest for nature and art.

## SEWING AND MANUAL TRAINING

Formerly sewing was taught for forty minutes a week in the fourth, fifth, and six grades and the instruction was generally confined to practice upon certain stitches, no practical application being made of the knowledge acquired. At the opening of the fall term it seemed best to teach the subject in the three upper grades of the elementary schools and to give more time to it—one hour a week in the seventh grade and two hours in the eighth and ninth. In these grades, the girls are old enough to learn readily the common stitches and to apply them at once in making simple articles of clothing. When the course is completely developed, it is expected that most, if not all of the girls, will learn not only how to make but how to cut and fit in a creditable way all their plain garments before graduating from the grammar school. This plan introduces a practical end which appeals strongly to the girls and supplies a motive which stimulates their best effort. The course will include not only plain hand sewing but some fancy stitches and experience in the use of the machine. At present, the girls are providing the cloth from which the garments are cut and made at school. From the first, both the girls and their homes have shown great interest in this work and the results have been most encouraging in every respect. It will take about two years more to develop the course fully and to show all its possibilities and advantages. Too often in the discussion of educational needs and plans our thought seems centered upon the boys, the girls being almost wholly left out of our consideration. This is certainly a mistake, for the rights of the girls in the public schools are just as much entitled to consideration as those of the boys. It is vitally important that the girls be well prepared to take their places in the life of the community—that their education fit them to do efficiently their part of the world's work, especially that part which falls within the home. Domestic science and household arts are an essential part of their training, and these subjects should be as generously provided and as well taught as the industrial and mechanic arts for boys. Suitable beginnings should be made in the elementary schools to be followed by much broader courses in the high school. The educational needs of girls are not the same as those

of boys. Our duty is to see that both receive the most appropriate training we can provide and that both shall have equal opportunities.

Although the manual training for the boys in the elementary schools has been somewhat extended during the year, it is given in only two schools, the Putnam and the Roberts. Additional equipment, however, has been purchased and it is hoped that six shops may be running regularly on full time before the end of another year. The plan is to give the boys of the three upper grades shop-work while the girls are taking sewing in the classroom. With a shop in each of the six or seven largest grammar schools it seems possible to arrange to accommodate all of the boys in these grades. Provision has already been made to open one more shop on full time at the beginning of the spring term. When the plan for the grammar schools is completely developed, the elementary course in wood-work in the Rindge Manual Training School can be displaced either by a more advanced course or by some other desirable course, without additional cost.

The educational atmosphere is full of industrial or vocational training and no well-conceived school report will fail to mention it this year. I have little to say, however, because our immediate work is to organize our present educational machinery into a more efficient system if possible; and because the problem of industrial education seems to be waiting for a satisfactory solution. When that solution is found, I feel sure it will not largely displace the present academic work but supplement it, and that it will take the form of general and systematic motor training beginning when the child enters school, rather than specific trade instruction beginning at the age of fifteen or sixteen. The fundamental mistake of the past has been in failing to recognize adequately the physical side of education and to provide for it during all the years of school life. When one has secured a normal, healthful development of his body and a good general mastery of his muscles, he is prepared to turn his hand readily to any manual art and to acquire skill with ease.

### PHYSICAL TRAINING AND THE PLAYGROUND

In the public schools of this city there is no provision for the regular and systematic physical education of all the pupils. Outside of the little time given to calisthenics and some incidental physical exercise for the comparatively few boys in the manual training classes, physical development receives no attention in the elementary schools. The girls of the high schools are the only pupils, a few hundred

out of over seventeen thousand, for whose physical needs there is any special provision. This certainly is a very serious defect. As I see it, public education ought to begin with the playground and to end with the library. It should begin in motor expression and end in intellectual and spiritual expression, and the transition from the predominance of muscle to the predominance of mind should be gradual in the course of training. It is not necessary to discuss the importance of the body and of good health in the work of life—the part they play in efficient and happy living—nor the economic significance of sickness and physical weakness, for they are apparent to every thoughtful person. Many, who have carefully considered the matter, are thoroughly convinced that the right development and education of human beings cannot be secured from books and schoolroom methods alone, that man is more than intellect and that healthy growth and complete education require some quite different agencies from those in general use. The very close relation of mind and body is only beginning to be appreciated by educators. They are learning, however, that without physical activity mental development is impossible, that the first and best tutor of the mind is the body. Brain and muscle instead of being mutually antagonistic are mutually complementary and form an indispensable union in the complete development and education of man. When men were taught to neglect and despise their bodies, not only physical but mental degeneracy began and the dark ages naturally followed. In the development of the race and of the individual, mind and body have always served and taught each other. It is only when both receive appropriate care and training that man appears at his best. Poets and artists have not been wont to clothe their gods and heroes in physical weakness and ugliness, but in strength and beauty, and the modern psychologist knows there is in this more than a poet's fancy.

Jacob Riis once said "You can never make more than half a man out of half a boy." He might have added that a boy without good physical development is never more than half a boy. The salvation of the boy has been, that he has generally insisted upon considerable physical exercise, even if secured in unwise and troublesome ways.

The statutes require that tuberculosis and its prevention shall be taught in all grades of the public schools. It is a wise precaution, provided the teaching is made concrete and effective by appropriate physical training. Academic instruction alone will accomplish little. Upon the minds of children, such instruction produces only vague and

unmeaning impressions, until the precepts are enforced and vitalized through practice and the formation of hygienic habits,—until an interest in their own physical development has been aroused and an ambition to possess a strong, active body has been awakened. Boys and girls, who have been thus taught and inspired, are most loyal to instruction and to the laws of health. They will do more to reform their parents and to improve home conditions in regard to food, cleanliness and pure air than all other agencies combined. To produce strong, active disease-resisting bodies, regular physical exercise in the open air and sunlight, especially during the growing period, is absolutely necessary. To complete the education of boys and girls and give them the best possible preparation for the stress of life in every field, intellectual and moral as well as physical, the playground and gymnasium are needed to supplement the school. It is in play alone that the whole child may be seen in action. The playground and the school-house, being complementary factors in education, belong together.

A department of physical education, in charge of a competent director, should be added to our school system in the near future, and a well-graded course in physical training should become a part of the required school work. There should be an out-of-door recess, both in the morning and in the afternoon, devoted to active play under the supervision of the teachers. The time thus spent actually increases the efficiency of the schools, because all, returning to their rooms refreshed, work more earnestly and more enjoyably. Nothing stimulates mental activity so much as good brisk play. Physical exercise is an indispensable condition to the best intellectual development. In fact, physical training is also mental training. The playgrounds and the periods of relaxation should bring to all of the pupils in the public schools training of the highest value, because it touches every phase, not only of the individual life but of the life of the community. We ought to give serious attention to the physical needs of the school children. The very positive approval of the public playground by the citizens of Cambridge, should speedily lead to some tangible results.

Although the summer playgrounds have had no connection with the public schools, it does not seem out of place to include in this report the following report prepared by Mrs. Helen L. Brooks:

The work of the summer playgrounds in 1909 seemed to have especial significance in view of the fact that the Playground Referendum Act had been adopted by a large majority, the vote being 10,131 in favor, and 869 against.

These playgrounds have been heretofore carried on by private subscription as an object lesson until they should be taken by the city.

Last summer there were eleven playgrounds. At first sight that would appear to be a falling off from 1908, when there were twelve. But this is not so, the explanation being that the boys were taken from the Sargent school yard to Cambridge Field where the opportunities for sports were better. Their director worked with Dr. J. G. Smith, who had charge of the Cambridge Field boys, thus conducting one playground with two sets of boys.

Four playgrounds for girls and younger children were in the school yards of the Gore, Parker, Tarbell and Taylor schools, and seven were in public parks,—three for younger children in Rindge Field, Cambridge Field and Broadway Park, and four for boys from ten to fifteen years of age in Rindge Field, Cambridge Field, the Front and Captain's Island.

Two of the school yards, where there were playgrounds last year, were not used this year because it seemed more important to place directors in Cambridge Field, since in that way, more children could be reached. The Lassell and Riverside school yards were reluctantly given up and the money which would have been expended on directors there, was used to place directors in Cambridge Field.

The committee on playgrounds considers it very important to have playgrounds in the school yards. They are scattered all over the city and experience has shown that the younger children will not go regularly very far from home to play. The larger playgrounds provides for the older children and the young children living in the immediate vicinity.

The city provided sand-boxes in the playgrounds for the younger children and allowed the use of one room in each schoolhouse where the yard was used as a playground. It also allowed the use of the two shelters in Cambridge Field and Rindge Field. Efforts were made to have the city place an open shelter over the sand-boxes in Cambridge Field, they being useless when exposed to the blazing sun. This was not accomplished, but doubtless will be this summer when the city takes the responsibility of the playgrounds. The playgrounds were opened July 12, and were kept open eight weeks. There were two sessions of two and a half hours each, five days a week. The attendance approximated one thousand five hundred children. The cost of maintenance was \$1,626.32, making the cost for each child less than \$1.27.

There was a superintendent for each division. Miss Mary J. Sheehan was superintendent of the younger children for the first four

weeks. When she was obliged to leave, Mrs. Nellie F. Walker was appointed in her place for the last four weeks. Mr. F. L. Candee was superintendent of the boys' playgrounds.

Each playground had a director. For the younger children there were three extra teachers who went from yard to yard teaching industrial work or helping with the games. The public library loaned suitable books.

Before the opening of the boys' playgrounds notices were sent to the teachers of the different grades in the neighboring grammar schools informing the scholars of the playgrounds to which they would belong on the day of opening.

Athletic games being for the most part the popular choice, careful schedules of base-ball games and track meets for inter-playground competition were made at the beginning of the season.

Conferences were held weekly by the directors and superintendents of both divisions, in which the work was discussed and planned. In the younger division an effort was made to grade the work according to age and ability and to vary it, to give the children new work before they tired of the old, and to conduct the games so that they might not weary of them.

An exhibition of the children's work was held during the last week. From every playground there were many neatly made articles, showing a great variety of occupations. There were also exhibitions of games and folk-dances.

These exhibitions were well attended by the parents, and were closed in the different playgrounds by marching with flags, singing patriotic songs and saluting the flag.

The older boys, who had formed themselves into the Cambridge Playground League, held their final contests the last week. There were two field days, one for the younger boys, who had games, potato races, etc., and one for the older boys, who had inter-playground track athletics.

Since the beginning of playground work in Cambridge, there has been a great change in the attitude of parents and neighbors towards the playgrounds and in the conduct of the children themselves. There is much greater interest and co-operation.

The committee on playgrounds considers the success of the playgrounds due to the enthusiastic work of well-trained and faithful superintendents and directors.

The experience of all playgrounds shows that adequate supervision is necessary to success. This has been clearly illustrated in

Cambridge Field where great numbers of children played last summer. Previously, except on days when match games were played, it was little used by the younger children. The committee had placed directors for the older boys there with success for several summers, but when a director was placed there last summer for the girls and younger children, they flocked to the field.

The people have voted that the city shall provide playgrounds. The children have developed the right spirit towards the playgrounds. The question now before the city is how best to make these playgrounds the strong influence they should be in helping to make these children future good citizens.

### THE FRESH-AIR SCHOOL

Early in April the first Fresh-Air School for the special care and instruction of delicate children will be ready to begin its important and much-needed work. In the establishment of this school the Cambridge Anti-Tuberculosis Association has been much interested, and great credit is due that association for its generous contributions of time, money and helpful suggestions.

The School Committee has made the necessary appropriation to remodel entirely a dwelling house on Winsor Street, near Broadway, and to furnish it suitably for its special use. On the first floor are the kitchen, dining-room and reception-room; on the second, the school-room and lavatories. The southern wall of the schoolroom has been removed and glass doors have been substituted so that this whole side can be open to the air at all times when the school is in session. There are ample grounds for play and for school gardens adjoining the building and owned by the city.

It should be clearly understood that the school is not for children suffering from tuberculosis, but for frail, anæmic or ill-nourished children who are peculiarly susceptible to the attack not only of tuberculosis but of other diseases.

While careful instruction in the regular school subjects will be provided, special attention will be given to the health and physical needs of the children. The open air, nourishing food at frequent intervals, personal cleanliness, appropriate exercise followed by periods of rest, are the agencies to be employed. The daily program will differ much from that of the ordinary school and the constant effort of those in charge will be to establish hygienic habits and to build up the general health of the pupils.



The school can care for only twenty-five children, therefore, those most in need of its privileges, will first be selected from various parts of the city. Children living at a long distance from the school will be provided with transportation on the street cars. We sincerely hope the time will soon come when all children who need the advantages such a school can have them.

### SIGHT AND HEARING TESTS

The annual tests of the sight and hearing of the school children, except those in the first grade primary and kindergarten classes, were made in October. Parents of children found seriously defective were notified as required by law and many of the cases reported have received professional treatment. The percentage of defectives was somewhat smaller this year than last, the per cent of defective eyes being twenty instead of twenty-three, and the per cent of defective hearing being three instead of four.

The results of the examinations were as follows: Number enrolled 5,876; number examined, 12,747; number defective in sight, 2,521; number defective in hearing, 357; number of parents notified, 1,781.

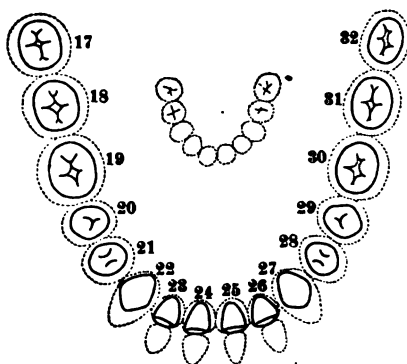
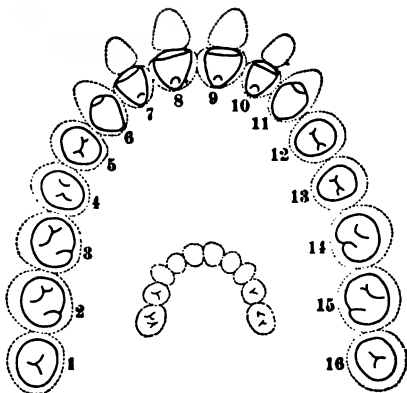
### EXAMINATION OF THE TEETH OF THE SCHOOL CHILDREN

In February a petition, signed by over forty practising dentists of this city, was received requesting that they be allowed to make and record the examination of the teeth of the school children in one or more districts, in order to show the exact condition of their teeth and to acquaint their parents with the facts. The petition was granted and a small appropriation was made by the School Committee to equip a room in the Wellington School on Columbia Street, near Cambridge, with several dental chairs and the necessary instruments.

The examination is made by local dentists entirely free of charge, and a card, similar to the following, properly marked and filled out, is given to each child in need of professional treatment.



..... *School.*  
*Pupil* ..... *Age* .....  
*Parent* .....  
*Address* .....



### NOTICE TO PARENTS.

..... has been examined by me and found to have teeth which must be attended to. You are advised to apply at once to your family dentist for treatment. If circumstances do not permit consulting a dentist at his office, the child will be treated at cost, at the Harvard Dental School Infirmary, Longwood Avenue, cor. Wigglesworth Street, Brookline, Monday, Tuesday, Wednesday and Friday mornings at 9 o'clock, and every afternoon at 2 except Saturday; or at the Tufts College Dental School Infirmary, 416 Huntington Avenue, Boston, every morning at 9.

..... D.M.D.  
*Examining Dentist.*

## DENTAL DEPARTMENT OF THE CAMBRIDGE PUBLIC SCHOOLS

As the germs of Consumption get into the body through decayed teeth, all decayed teeth must be attended to at once.

### DIRECTIONS FOR THE CARE AND USE OF THE TEETH.

- 1.—The teeth should be thoroughly brushed after each meal, and especially before going to bed.
- 2.—A tooth powder used on the brush helps to clean the teeth.
- 3.—The slow and thorough chewing of all food helps to preserve the teeth and keep the mouth in a healthy condition.
- 4.—Children's teeth must be examined by a dentist at least twice a year.

## EVENING SCHOOLS

There are eight evening schools,—one industrial school, two drawing schools, one high school, and four elementary schools. In accordance with the Rules of the School Board, there are two terms of the evening schools. The first term begins on the second Monday of October and continues every Monday, Wednesday, and Friday evening until the end of the week before Christmas. The second term begins on the first Monday, Wednesday or Friday evening after the opening of the day schools in January, and continues thirty-five evenings. The sessions begin at half past seven o'clock and continue two hours. No session is held on the evening of a holiday, or during the vacations of the day schools.

The Evening Industrial School is held at the Rindge Manual Training School building, and offers courses in machine shop work, wood-turning, pattern-making, forging and foundry work. The head master of the Rindge Manual Training School is principal of the school.

The Mechanical Drawing School occupies three rooms in the Washington building and is also under the charge of the head master of the Rindge Manual Training School. This school provides two courses in drawing,—a three years' course in machine drawing, and three years' course in architectural drawing.

The Free-hand Drawing School occupies one room in the English High School building and is under the supervision of the director of drawing for the day schools. This school offers a three years' course in free-hand drawing which includes drawing from a life model. Diplomas are given to graduates of both drawing schools.

The Evening High School is held in the English High School building and offers a three years' course of instruction in the following subjects: Commercial arithmetic, bookkeeping, algebra, geometry, geography and typewriting, English composition, English literature, civics, history, Latin, French and German. Diplomas are given to graduates of the three years' course.

The evening elementary schools occupy rooms in four of the grammar school buildings, the Putnam, Roberts, Shepard, and Weber. Reading, writing, arithmetic, geography, language, history, and bookkeeping are taught in these schools in classes, so far as classification is possible, but a large part of the work is individual. No definite course is arranged, but an opportunity is offered to pupils to prepare to enter the Evening High School, and certificates are given to those who are qualified to begin work in that school. An

addition to the subjects given above, classes in civil service, sewing, dressmaking, millinery, wood-working, and mechanical drawing are formed when a sufficient number express an intention to take any one of these courses.

The Evening Industrial School, the two drawing schools, and the classes in dressmaking and millinery in the four elementary schools were carried on by the School Committee under the direction of the Massachusetts Commission on Industrial Education during the years 1907-1908, and 1908-1909.

Under the direction of the Commission, on January 18, 1909, in addition to the classes in sewing already formed, a class of fourteen girls, from fifteen to seventeen years of age, was opened in the Putnam Evening School to learn the dressmaking trade. Two evenings a week were given to the study of cutting, fitting and sewing, and to the study of the texture of cloths. One evening was given to the study of designing, drawing, color and color harmony. This class was continued until the close of the school in March.

The statistics and cost of the evening schools for the year 1907-1908 were given in the school report for 1908, the financial year being from December, 1907, to December, 1908.

The statistics and cost of the evening schools which opened October 12, 1908 and closed March 29, 1909, are given in the following tables, the financial year being from April 1, 1908 to April 1, 1909, a change made necessary by the adoption of a new city charter. These tables include the statistics and cost of the industrial schools and classes which were carried on under the direction of the Massachusetts Commission on Industrial Education.

The following table shows the attendance at the evening schools for the year 1908-1909:

	Number Registered	Average Attendance	Average No. of Teachers*	Average No. of Pupils to a Teacher	Number of Graduates
Industrial School. . . . .	98	56	4	14	..
Mechanical Drawing..	104	51	4	13	8
Free-hand Drawing ..	53	23	2	12	3
High School. . . . .	298	171	11	15	20
Putnam School. . . . .	819	312	24	13	30
Roberts School. . . . .	867	315	23	14	39
Shepard School. . . . .	215	107	9	12	14
Webster School. . . . .	326	142	10	14	21
Total. . . . .	2,780	1,177	87	13	135

\* The principals and curators are not included in these averages.

The following table shows the cost of the evening schools for the year 1908-1909. The cost per pupil is based on the average number belonging:

	Cost of Instruction	Cost of Text-books and Supplies	Cost of Light, Fuel, and Janitors	Total Cost	Cost per Pupil
Industrial School....	\$1,345.00	\$401.50	\$639.32	\$2,385.82	\$44.96
Mechanical Drawing..	836.00	70.33	203.60	1,109.93	21.76
Free-hand Drawing..	455.00	45.95	56.30	557.25	24.22
High School.....	1,649.00	141.26	562.79	2,353.05	13.76
Putnam School.....	2,613.00	120.27	533.46	3,266.73	10.47
Roberts School.....	2,566.50	60.14	582.00	3,208.64	10.18
Shepard School.....	1,165.00	13.06	200.23	1,378.29	12.88
Webster School.....	1,229.50	84.83	257.50	1,571.83	11.07
Total.....	\$11,859.00	\$937.34	\$3,035.20	\$15,831.54	\$13.96

The statistics and cost of the evening schools for 1909-1910, which opened October 11, 1909 and closed March 23, 1910, are given in the two following tables. All of the evening schools and classes this year were carried on under the direction of the School Committee.

The following table shows the attendance at the evening schools for the year 1909-1910:

	Number Registered	Average Attendance	Average No. of Teachers*	Average No. of Pupils to a Teacher	Number of Graduates
Industrial School....	111	59	4	15	..
Mechanical Drawing..	114	55	4	13	10
Free-hand Drawing..	45	24	2	12	6
High School.....	322	161	10	16	13
Putnam School.....	781	295	22	13	37
Roberts School.....	815	284	22	13	41
Shepard School.....	192	101	8	12	21
Webster School.....	336	111	9	12	26
Total.....	2,716	1,090	81	13	154

\* The principals and curators are not included in these averages.

The following table shows the cost of the evening schools for the year 1909-1910:

	Cost of Instruction	Cost of Text-books and Supplies	Cost of Light, Fuel, and Janitors	Total Cost	Cost per Pupil
Industrial School....	\$1,300.00	\$287.63	\$687.05	\$2,274.68	\$38.55
Mechanical Drawing..	842.00	21.84	218.53	1,082.37	19.68
Free-hand Drawing..	407.00	55.64	50.40	513.04	21.38
High School.....	1,597.00	88.10	563.99	2,249.09	13.97
Putnam School.....	2,537.00	42.83	440.35	3,020.18	10.24
Roberts School.....	2,499.50	45.25	491.16	3,035.91	10.69
Shepard School.....	1,139.00	12.94	182.24	1,334.18	13.21
Webster School.....	1,133.00	59.60	227.80	1,420.40	12.79
Total.....	\$11,454.50	\$613.83	\$2,861.52	\$14,929.85	\$13.70

### VACATION SCHOOLS

The vacation schools for the summer of 1909 opened on Tuesday, July 6, in the following school buildings: the Rindge Manual Training, the English High, the Putnam, Roberts, Shepard and Webster, and continued for five weeks, closing on Friday, August 6.

There were two sessions of two hours each for five days in the week, one division attending the first two hours, and another the last two hours. At the beginning it was found necessary, on account of the large numbers in the divisions, to have a division in sloyd and another in cooking in the afternoon, but as the numbers decreased, all of the divisions were cared for in the morning.

One thousand three hundred sixty-two cards were issued from the office to pupils from the grammar grades in any school in the city. After the first day any pupil from a grammar grade was allowed to enter without a card. The cards were given in order that the pupils might know which school to attend, and be able to begin work the first day.

One thousand five hundred twenty-one pupils were registered during the term, and the average attendance was one thousand twelve, an increase of one hundred five over the preceding year. The interest in the schools continued until the close of the schools, in spite of the very hot weather, as the attendance on the first Friday was twelve hundred sixty-seven, and on the last Friday, nine hundred thirty-four.

The older pupils were given a choice of either basketry, cooking, sewing or sloyd. The younger pupils were given lessons in water-

color painting, reading, writing, and in many other kinds of work that were pleasing and profitable to them. Trips were taken to Agassiz Museum and to other places of interest.

Five teachers of sloyd were employed, two of basketry, two of cooking, nine of sewing, one of music, and nine with the younger pupils, a total of twenty-eight. The teachers of the younger pupils held several meetings to discuss the best methods to keep the children happy and contented in their work, and at the same time to make the summer profitable to them.

The following table shows the number in attendance at each school, and the line of work in each:

SCHOOLS	Subject	Number Registered	Average Attendance
Rindge Manual Training School.....	Sloyd.....	102	68
English High School.....	Academic...	85	57
	Basketry....	82	59
	Cooking.....	112	63
	Sewing.....	56	36
	Sloyd.....	63	47
Putnam School.....	Academic...	102	66
	Sewing.....	85	61
	Sloyd.....	39	22
Roberts School.....	Academic...	259	161
	Sewing.....	62	41
	Sloyd.....	60	36
Shepard School.....	Academic...	89	61
	Sewing.....	67	50
Webster School.....	Academic...	149	90
	Sewing.....	109	94
Total.....		1,521	1,012

The following table shows the number registered in each subject with the average attendance:

	Number Registered	Average Attendance
Academic.....	684	435
Basketry.....	82	59
Cooking.....	112	63
Sewing.....	379	282
Sloyd.....	264	173
Total.....	1,521	1,012

The cost of the vacation school was \$1,453 for salaries of teachers, \$160 for salaries of janitors, and \$186.35 for supplies, a total of \$1,799.35 or of \$1.77 per pupil based on the average attendance.

### TRUANT OFFICERS

The city is divided into four districts, and to each of these districts a truant officer is assigned. Among their duties are the following: To visit each school at least once a day, unless otherwise directed by the agent of the Board; to prevent children from loitering about the school premises; to notify the teachers of all cases of contagious or infectious diseases reported by the board of health; to attend the evening schools when so directed by the agent; to assist in the preservation of order, and to visit places of business where children are employed, to see that none are employed unlawfully. They make all complaints at the district court for truancy, and take boys to the Middlesex County Truant School when they are sentenced.

The work of the truant officers is carried on under the supervision of the agent of the Board, whose duty it is to consider all cases of truancy, of persistent violation of the rules of the schools, of juvenile vagrancy, of unlawful detention from school, of neglect by parents; and of any failure on the part of pupils or parents to comply with the rules of the school board or the public statutes relating to school attendance. It is also the duty of the agent to direct the officers to make complaints; to certify to the records in these cases when presented before the district court; and to exercise such supervision of the boys who are sent by the court from Cambridge to the truant school as may be allowed under the statutes.

The following is a summary of the work of the truant officers during the school year from September 1, 1908 to July 1, 1909:—

Whole number of absences investigated . . . . .	12,534
Truancy, first offence . . . . .	580
Truancy, third offence . . . . .	151
Truancy, fifth offence or more . . . . .	217
Complaints at court . . . . .	26
Children put on probation . . . . .	7
Sentenced by the court . . . . .	19
Children found wandering about the streets . . . . .	84
Such children sent to school . . . . .	68
Visits to mercantile or manufacturing establishments . . . . .	294
Children employed without certificates . . . . .	17

The truant officers have also supervised the taking of the school census. The statistics of the private schools obtained by one of the



officers show that there are ten private schools in the city, which receive \$48,025 for tuition, and five parochial schools. The following is the number of pupils in these schools:

Parochial schools . . . . .	3,772
Private schools . . . . .	356
Total number of pupils not in public schools . . . . .	4,128

In conclusion, I wish to acknowledge my great obligation to the many citizens of Cambridge, who, by their thoughtfulness and kindness, have done so much to make my first year in this city a pleasant one; and to express my deep appreciation of the cordial reception and hearty co-operation of the teachers, who have done so much to ensure the success of our united efforts.

Respectfully submitted,

FRANK E. PARLIN,  
*Superintendent.*

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In School Committee, April 22, 1910.

*Ordered,* That the reports of the President of the Board and the Superintendent of Schools as presented by them, be adopted as the annual report of the School Committee for 1909-1910.

SANFORD B. HUBBARD,  
*Secretary.*

#### MEMBERS OF THE SCHOOL COMMITTEE FOR 1909-1910

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JOSEPH H. BEALE	FRED A. McMENIMEN
*JEREMIAH F. DOWNEY	J. HENRY RUSSELL
FLORENCE LEE WHITMAN	

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\* Resigned October 22, 1909.



# STATISTICS



## FINANCES

For the financial year from April 1, 1909, to April 1, 1910.

### RECEIPTS.

nt received from the tax levy under the City Charter . . . . .	\$520,489.70
nt received from tuition, etc. . . . .	7,631.14
Total amount available for school purposes . . . . .	<u>\$528,120.84</u>

### EXPENDITURES.

#### AMOUNT EXPENDED BY THE SCHOOL COMMITTEE.

f instruction, day schools . . . . .	\$389,919.31
f instruction, evening schools . . . . .	11,454.50
f care of buildings, including heat and light . . . . .	71,995.81
f text-books and supplies . . . . .	24,103.90
f sloyd outfits . . . . .	1,750.00
ded for the care of truants . . . . .	2,828.62
ded for the care of flags . . . . .	127.17
ded for incidental expenses . . . . .	1,723.46
ded for transportation of pupils . . . . .	327.00
ded on vacation schools . . . . .	1,799.35
ded for repairs on buildings, furniture, etc . . . . .	21,604.20
ded for tuition of Cambridge pupils in Boston Trade School for Girls . . . . .	403.76
e on tuition . . . . .	9.00
Total amount expended by the School Committee . . . . .	<u>\$528,046.08</u>
re unexpended . . . . .	\$74.76

#### NT EXPENDED ON SCHOOL BUILDINGS BY THE CITY COUNCIL UNDER THE DIRECTION OF THE SUPERINTENDENT OF PUBLIC BUILDINGS.

ded on the Wellington School, alterations . . . . .	\$49,358.71
ded on the Webster School, land and building . . . . .	24,605.71
ded on the Lassell School, fire damage . . . . .	431.87
ded on the grounds of the Morse School . . . . .	100.00
ded on the Thorndike School . . . . .	57.00
ded for land on Winsor Street . . . . .	3,500.00
Total amount expended on land and buildings . . . . .	<u>\$78,053.29</u>

## REPORT OF SCHOOL COMMITTEE

## COST OF INSTRUCTION IN THE DAY SCHOOLS.

Salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers.

Year	*Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for Year Ending in June	Total Cost	Cost per Pupil
1902	417	14,747	14,244	\$343,787 00	\$24 14
1903	428	14,935	14,397	349,179 80	24 25
1904	435	15,075	14,454	356,406 89	24 66
1905	447	15,364	14,606	366,448 39	25 09
1906	455	15,475	14,907	377,343 02	25 31
1907	460	15,580	14,957	385,927 00	25 80
1908	454	16,019	15,214	374,000 99	24 58
1909	457	15,895	14,465	389,819 31	25 21

## COST OF THE DAY SCHOOLS.

Cost of instruction, of text-books and supplies, of incidental expenses, of the care of truant, of the care of schoolhouses, and of the transportation of pupils.

Year	*Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for Year Ending in June	Total Cost	Cost per Pupil
1902	417	14,747	14,244	\$427,356 71	\$30 00
1903	428	14,935	14,397	429,554 39	29 84
1904	435	15,075	14,454	450,310 44	31 15
1905	447	15,364	14,606	462,412 09	31 66
1906	455	15,475	14,907	464,529 43	31 16
1907	460	15,580	14,957	488,636 18	32 67
1908	459	16,019	15,214	477,286 82	31 37
1909	457	15,895	14,465	489,712 68	31 66

\* The unassigned teachers are not included in the number of teachers in December, of whom in 1905, 1906 and 1907, there were four, in 1908, five, and in 1909, nine.

## COST OF INSTRUCTION IN THE EVENING SCHOOLS.

Year	Drawing	Industrial	High	Elementary	Total
1905	\$1,491 00	\$180 00	\$1,709 00	\$6,436 00	\$9,816 00
1906	1,647 00	788 00	1,830 00	7,440 50	11,705 50
1907	1,274 00	831 00	1,380 00	5,587 00	9,072 00
1908	1,342 00	1,474 00	1,839 00	7,980 00	12,635 00*
1908	1,291 00	1,345 00	1,649 00	7,574 00	11,859 00†
1909	1,249 00	1,300 00	1,597 00	7,308 50	11,454 50

\* Cost of instruction for 1907-1908, the financial year being from December 1, 1908 to December 1, 1909.

† Cost of instruction for 1908-1909, the financial year being from April 1, 1908 to April 1, 1909.

**COST OF INSTRUCTION**  
From April 1, 1909 to April 1, 1910.

Schools and Officers	Cost of Instruction	Average Number of Pupils	Cost per Pupil
Latin School.....	\$25,734 91	500	\$51 46
English High School.....	27,754 19	552	50 28
Indge Manual Training School.....	31,304 40	538	58 19
Training School (Teachers).....	15,948 24	681	23 42
Grammar Schools (except Training School).....	148,902 12	7,044	21 14
Primary Schools (except Training School).....	89,869 90	5,385	16 69
Kindergartens.....	19,915 43	765	26 03
Directors of Music.....	2,850 00	.....	.....
Directors of Drawing.....	2,829 00	.....	.....
Instructor in Physical Training.....	950 00	.....	.....
Teachers of Sewing.....	2,366 00	.....	.....
Substitute Teachers.....	3,936 20	.....	.....
Unassigned Teachers.....	2,666 00	.....	.....
Superintendent.....	3,500 00	.....	.....
Supervisor of Primary Schools.....	1,350 00	.....	.....
Secretary and Agent.....	2,829 67	.....	.....
Clerks.....	1,575 00	.....	.....
Porter.....	700 00	.....	.....
Quarant Officers.....	4,002 00	.....	.....
Indge Manual Training School, summer sessions for Harvard students.....	800 00	.....	.....
Tuition paid to Belmont for Cambridge pupils.....	136 25	.....	.....
<b>Total.....</b>	<b>\$389,919 31</b>	<b>15,465</b>	<b>\$25 21</b>
Cost of instruction in Evening Drawing Schools . . . . .			\$1,249 00
Cost of instruction in Evening Industrial School . . . . .			1,300 00
Cost of instruction in Evening High School . . . . .			1,597 00
Cost of instruction in Evening Elementary Schools . . . . .			7,308 50
<b>Total . . . . .</b>			<b>\$11,454 50</b>

**TEXT-BOOKS AND SUPPLIES**

The following is an account of the purchases, expenditures, and distribution of books and supplies during the school year 1908-1909. This is the twenty-fourth annual report of the agent, and the twenty-fifth in a series of reports of the supply department:

Stock in storeroom July 1, 1908 . . . . .	\$6,509 58	
Expended from the appropriation . . . . .	25,865 34	
Value of exchanges . . . . .	217 45	
		\$32,592 37
Distributed to schools, officers, etc. . . . .	\$24,738 10	
Sold for cash . . . . .	234 11	
		\$24,972 21
Stock on hand July 1, 1909 . . . . .		\$7,620 16

The purchases and expenditures appear in detail as follows:

For text-books . . . . .	\$9,760 62	
Desk and reference books. . . . .	148 54	
Copy books . . . . .	445 60	
Apparatus and furnishings . . . . .	3,345 24	
Diplomas, \$235.31; printing, \$304.63 . . . . .	539 94	
Repairing books, \$426.90; tuning pianos, \$36.75 . . . . .	463 65	
Expressage and labor . . . . .	537 62	
Miscellaneous supplies. . . . .	10,841 58	
		\$26,082 79
Less the value of exchanges . . . . .		217 45
		<u>\$25,865 34</u>

The net cost of text-books and supplies is as follows:

Stock on hand July 1, 1908 . . . . .	\$6,509 58	
Bills paid by City Treasurer . . . . .	25,865 34	
		\$32,374 92
Stock on hand July 1, 1909 . . . . .	\$7,620 16	
Cash paid to City Treasurer, sales and damages . . . . .	754 25	
		<u>\$8,374 41</u>

We have, net cost of all schools and officers . . . . . \$24,000 51  
 or an average cost per pupil of \$1.551. The average  
 cost per pupil for twenty-five years is \$1.321.

The annual cost per pupil for text-books and supplies since the introduction of free text-books is as follows:

Year	Cost per Pupil	Year	Cost per Pupil	Year	Cost per Pupil
1885	\$1.880	1894	\$1.243	1903	\$1.306
1886	1.170	1895	1.152	1904	1.468
1887	1.051	1896	1.436	1905	1.434
1888	1.068	1897	1.094	1906	1.476
1889	0.960	1898	1.268	1907	1.620
1890	1.334	1899	1.225	1908	1.443
1891	1.248	1900	1.740	1909	1.551
1892	1.149	1901	1.203	.....	.....
1893	1.109	1902	1.400	.....	.....



he net cost of each grade of schools for text-books and supplies  
llows:

	Net Expense	Cost per Pupil				
		1909	1908	1907	1906	1905
chool.....	\$1,666.64	\$3.333	\$2.349	\$4.136	\$3.036	\$3.182
High School.....	2,069.03	3.748	6.496	4.894	4.425	3.356
Training School.....	6,024.98	11.198	9.077	10.723	9.679	0.014
g School, Teachers....	1,024.11	1.504	1.328	1.127	1.126	0.964
ar Schools.....	3,960.04	1.257	1.128	1.315	1.343	1.258
Schools.....	5,497.43	0.924	0.835	1.156	0.981	1.153
y Schools.....	2,016.75	0.605	0.444	0.584	0.508	0.433
gartens.....	264.39	0.345	0.582	0.353	0.494	0.637
g Schools.....	822.73					
n Schools.....	19.28					
Teachers.....	65.80					
of Board.....	47.95					
aneous Expenses (not eable to any grade)...	542.81					
	\$24,021.94					
ofit on sales.....	21.43					
	\$24,000.51	\$1.551	\$1.443	\$1.620	\$1.476	\$1.434

## GENERAL STATISTICS

## POPULATION OF CAMBRIDGE.

. . . . .	20,473	1885	. . . . .	59,660
. . . . .	29,112	1895	. . . . .	81,643
. . . . .	47,838	1905	. . . . .	97,434

## SCHOOL CENSUS

umber of children in the city five years old or more, but less than

	Boys	Girls	Total
r in the city between five and fifteen.....	7,883	7,944	15,827
r in the public schools between five and fifteen..	6,269	5,848	12,117
r in the private schools between five and fifteen	1,435	1,928	2,363
r not attending school between five and fifteen	179	168	347
r in the city between five and six.....	817	797	1,614
r in the city between seven and fourteen.....	5,622	5,676	11,298

## SCHOOLS AND CLASSROOMS.

DECEMBER, 1909.

aLatin School . . . . .	1	Classrooms in use . . . . .	16
bEnglish High School . . . . .	1	" " . . . . .	14
cRindge Manual Training School . . . . .	1	" " . . . . .	15
dGrammar Schools . . . . .	5	" " . . . . .	71
eGrammar and Primary Schools . . . . .	13	" " . . . . .	156
Primary Schools . . . . .	15	" " . . . . .	77
Kindergartens . . . . .	16	" " . . . . .	16
Evening Industrial School . . . . .	1	" " . . . . .	4
Evening Drawing Schools . . . . .	2	" " . . . . .	4
Evening High School . . . . .	1	" " . . . . .	11
Evening Elementary Schools . . . . .	4	" " . . . . .	30
Whole number of Day Schools . . . . .			51
Whole number of classrooms for Day Schools . . . . .			365
Whole number of Evening Schools . . . . .			8
Whole number of classrooms for Evening Schools . . . . .			49

a. This school has a library, a chemical laboratory, a physical laboratory, a lecture room, a gymnasium, an assembly hall, and recitation rooms.

b. This school has an assembly hall, a lecture room, a chemical laboratory, a physical laboratory, a drawing room, and recitation rooms.

c. This school occupies three buildings and has an assembly hall, chemical and physical laboratories, drawing rooms, recitation rooms, and rooms for various kinds of shopwork.

d. Four of these schools have assembly halls.

e. Nine of these have assembly halls.

## NUMBER OF TEACHERS IN THE DAY SCHOOLS.

The directors of special studies and the teachers of sewing are included in the totals.

The unassigned teachers are not included, of whom in 1905, 1906, 1907, there were four in 1908, five, and in 1909 nine.

December	Latin School	English High School	Rindge Manual Training School	Grammar Schools	Primary Schools	Kindergartens	Total
1905	24	24	22	191	144	32	447
1906	25	25	22	199	143	31	455
1907	25	26	25	199	143	31	460
1908	23	†27	24	200	141	30	454
1909	22	25	24	204	142	30	457

†Twenty-six regular teachers and one consulting teacher.

## ATTENDANCE AT ALL THE DAY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1905	16,381	14,606	13,550	92.8
1906	16,740	14,907	13,855	92.9
1907	16,803	14,957	13,878	92.8
1908	17,135	15,214	14,144	92.9
1909	17,431	15,465	14,414	93.2

## ATTENDANCE AT THE LATIN SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1905	564	531	506	95.2
1906	577	530	508	95.8
1907	544	489	471	96.3
1908	547	506	487	96.2
1909	546	500	480	95.9

## ATTENDANCE AT THE ENGLISH HIGH SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1905	595	550	525	95.5
1906	619	570	545	95.8
1907	666	594	570	95.9
1908	640	584	560	95.8
1909	633	552	529	95.7

## ATTENDANCE AT THE RINDGE MANUAL TRAINING SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1905	426	396	377	95.1
1906	489	440	417	94.7
1907	475	428	409	95.6
1908	549	489	461	94.2
1909	603	538	511	95.0

## ATTENDANCE AT THE GRAMMAR SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1905	7,457	6,713	6,331	94.3
1906	7,412	6,887	6,508	94.5
1907	7,869	7,192	6,783	94.3
1908	7,909	7,283	6,892	94.6
1909	8,191	7,500	7,124	94.9

## REPORT OF SCHOOL COMMITTEE

## ATTENDANCE AT THE PRIMARY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1905	6,359	5,629	5,173	91.9
1906	6,682	5,738	5,273	91.9
1907	6,324	5,551	5,092	91.7
1908	6,562	5,653	5,171	91.5
1909	6,409	5,610	5,148	91.7

## ATTENDANCE AT THE KINDERGARTENS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1905	980	787	638	81.1
1906	961	742	604	81.3
1907	925	703	553	78.7
1908	928	699	573	81.9
1909	1,049	765	622	81.3

## NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE LATIN SCHOOL.

Course, 5 years.

Year	Boys	Average Age	Girls	Average Age
1905	61	14 years 6 months	92	14 years 8 months
1906	67	14 years 2 months	85	14 years 2 months
1907	64	14 years 3 months	85	14 years 3 months
1908	88	14 years 2 months	71	14 years 5 months
1909	60	14 years 3 months	74	14 years 5 months

## NUMBER OF PUPILS GRADUATED FROM THE LATIN SCHOOL.

Course, 5 years.

Year	Boys	Average Age	Girls	Average Age
1905	40	18 years 11 months	30	18 years 7 months
1906	27	18 years 6 months	32	18 years 8 months
1907	22	18 years 11 months	35	18 years 4 months
1908	27	18 years 8 months	35	18 years 8 months
1909	18	18 years 11 months	25	18 years 9 months

## NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE ENGLISH HIGH SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1905	10	14 years 6 months	209	14 years 6 months
1906	17	14 years 6 months	233	14 years 11 months
1907	4	13 years 4 months	254	14 years 10 months
1908	4	13 years 3 months	256	14 years 11 months
1909	0	.....	204	14 years 8 months

## NUMBER OF PUPILS GRADUATED FROM THE ENGLISH HIGH SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1905	13	18 years 10 months	61	18 years 9 months
1906	7	17 years 7 months	67	18 years 5 months
1907	11	19 years 1 month	108	18 years 7 months
1908	7	17 years 10 months	67	18 years 3 months
1909	5	17 years 9 months	80	18 years 6 months

## NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE RINDGE MANUAL TRAINING SCHOOL, WITH THE NUMBER OF GRADUATES.

Year	Admitted	Average Age	Graduated	Average Age
1905	199	15 years 0 months	32	18 years 7 months
1906	167	14 years 11 months	45	18 years 9 months
1907	203	15 years 0 months	33	19 years 0 months
1908	205	15 years 0 months	51	18 years 8 months
1909	208	14 years 9 months	71	18 years 9 months

## NUMBER OF PUPILS GRADUATED FROM THE GRAMMAR AND PRIMARY SCHOOLS.

Year	Grammar Schools, Course, 6 years	Average Age	Primary Schools, Course, 3 years	Average Age
1905	720	14 years 10 months	1,427	9 years 6 months
1906	713	14 years 9 months	1,609	9 years 5 months
1907	735	14 years 9 months	1,467	9 years 5 months
1908	753	14 years 9 months	1,543	9 years 6 months
1909	756	14 years 9 months	1,516	9 years 5 months

LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE GRAMMAR SCHOOLS.

Year	In 4 years	In 5 years	In 6 years	In 7 years or more
1905	6 per cent	28 per cent	53 per cent	13 per cent
1906	6 per cent	27 per cent	51 per cent	16 per cent
1907	6 per cent	27 per cent	50 per cent	17 per cent
1908	7 per cent	24 per cent	52 per cent	17 per cent
1909	6 per cent	21 per cent	54 per cent	19 per cent

LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE PRIMARY SCHOOLS.

Year	In less than 3 years	In 3 years	In 3½ years	In 4 years	In 4½ years or more
1905	3 per cent	60 per cent	6 per cent	21 per cent	10 per cent
1906	5 per cent	58 per cent	4 per cent	25 per cent	8 per cent
1907	4 per cent	61 per cent	3 per cent	23 per cent	9 per cent
1908	5 per cent	64 per cent	3 per cent	22 per cent	6 per cent
1909	4 per cent	61 per cent	4 per cent	22 per cent	9 per cent

NUMBER OF PUPILS IN THE LATIN SCHOOL, DECEMBER, 1909.

Grade	Boys	Girls	Total	Per cent
Fourteenth.....	22	34	56	.113
Thirteenth.....	35	35	70	.141
Twelfth.....	42	63	105	.212
Eleventh.....	72	57	129	.260
Tenth.....	57	79	136	.274
Total.....	228	268	496	

NUMBER OF PUPILS IN THE ENGLISH HIGH SCHOOL, DECEMBER, 1909.

Grade	Girls		Per cent
Thirteenth.....	91	This school is for girls only. It became a girls' school, September 17, 1908.	.173
Twelfth.....	98		.184
Eleventh.....	142		.268
Tenth.....	199		.375
Total.....	530		

## NUMBER OF PUPILS IN THE RINDGE MANUAL TRAINING SCHOOL, DECEMBER, 1909.

Grade	Boys		Per cent
nirteenth.....	80	This school is for boys only. It became a part of the public school system, January 1, 1899.	.141
welfth.....	141		.249
eleventh.....	163		.287
tenth.....	183		.323
Total.....	567		

## NUMBER OF PUPILS IN THE GRAMMAR SCHOOLS, DECEMBER, 1909.

Grade	Boys	Girls	Total	Per cent
ninth.....	359	395	754	.097
.....	53	53	106	.014
ighth.....	471	460	931	.120
.....	80	103	183	.024
venth.....	577	561	1,138	.147
xth.....	636	596	1,232	.159
.....	112	113	225	.029
fth.....	755	651	1,406	.182
.....	162	157	319	.041
ourth.....	768	681	1,449	.187
Total.....	3,973	3,770	7,743	

## NUMBER OF PUPILS IN THE PRIMARY SCHOOLS, DECEMBER, 1909.

Grade	Boys	Girls	Total	Per cent
ird.....	905	836	1,741	.302
cond.....	962	828	1,790	.311
rst.....	1,213	1,019	2,232	.387
Total.....	3,080	2,683	5,763	

## NUMBER OF PUPILS AND TEACHERS IN THE KINDERGARTENS.

Year	Boys	Girls	Total	Number of Teachers
1906	398	402	800	31
1907	404	376	780	31
1908	427	440	867	30
1909	406	390	796	30

## SUMMARY

DECEMBER, 1909.

Number of pupils in the Latin School . . . . .	496
Number of pupils in the English High School . . . . .	530
Number of pupils in the Rindge Manual Training School . . . . .	567
Number of pupils in the Grammar Schools . . . . .	7,743
Number of pupils in the Primary Schools . . . . .	5,763
Number of pupils in the Kindergartens . . . . .	796
<hr/>	
Number of pupils in the public schools, December, 1909 . . . . .	15,895
Number of pupils in the public schools, December, 1908 . . . . .	16,019
<hr/>	
Decrease of pupils, 1909 . . . . .	124
Increase of pupils, 1908 . . . . .	439
Increase of pupils, 1907 . . . . .	105
Increase of pupils, 1906 . . . . .	111
Increase of pupils, 1905 . . . . .	289
Increase of pupils, 1904 . . . . .	140
Increase of pupils, 1903 . . . . .	188
Increase of pupils, 1902 . . . . .	253
Increase of pupils, 1901 . . . . .	62
Increase of pupils, 1900 . . . . .	332
Increase of pupils, 1899 . . . . .	314

## REMARKS ON THE STATISTICS

The number of pupils registered in the day schools during the school year ending at noon, June 25, 1909, was 17,431, an increase over the preceding year of 296; the average number belonging was 15,465, an increase of 251, and the average daily attendance was 14,414, an increase of 270. In the per cent of attendance there was an increase of three-tenths of one per cent. The number of pupils belonging to the day schools in December, 1908, was 16,019; in December, 1909, 15,894, a decrease of 124.

The cost of instruction for the day schools for the financial year from April 1, 1909, to April 1, 1910, which includes the salaries of teachers, superintendent, supervisor, agent, secretary, clerks and truant officers, was \$389,919.31. The total cost of the day schools, which, in accordance with the statutory definition of the support of public schools, includes the cost of instruction, text-books and supplies, incidental expenses, care of truants, care of schoolhouses, the cost of fuel and light, and the transportation of pupils, was \$489,712.68.

The registration in all the evening schools for the school year from October 11, 1909 to March 23, 1910, was 2,716 and the average attendance was 1,090. The total cost of these schools which includes the cost of instruction, the cost of text-books and supplies, and the care of schoolhouses, including fuel and light, was \$14,929.85.



**NUMBER OF PUPILS REGISTERED IN THE EVENING DRAWING SCHOOLS, WITH  
THE AVERAGE ATTENDANCE.**

	1906-1907	1907-1908	1908-1909	1909-1910
Number registered.....	193	142	157	159
Average attendance.....	84	77	74	79

**NUMBER OF PUPILS REGISTERED IN THE EVENING INDUSTRIAL SCHOOL, WITH  
THE AVERAGE ATTENDANCE.**

	1906-1907	1907-1908	1908-1909	1909-1910
Number registered.....	92	93	98	111
Average attendance.....	51	57	56	59

**NUMBER OF PUPILS REGISTERED IN THE EVENING HIGH AND ELEMENTARY  
SCHOOLS, WITH THE AVERAGE ATTENDANCE.**

	1906-1907	1907-1908	1908-1909	1909-1910
Number registered.....	2,367	2,742	2,525	2,446
Average attendance.....	962	1,123	1,047	952

**NUMBER OF PUPILS IN THE PRIVATE SCHOOLS IN CAMBRIDGE, INCLUDING THOSE  
IN THE PAROCHIAL SCHOOLS.**

1904	1905	1906	1907	1908	1909
4,047	4,100	4,068	4,227	4,014	4,128

**NUMBER OF AGE AND SCHOOLING CERTIFICATES ISSUED.**

1904	1905	1906	1907	1908	1909
578	666	851	868	636	913
*859	*749	*1,137	*857	*538	*556

\* Issued to minors over sixteen years of age.

**TABULAR VIEW**  
Teachers in Service April 1, 1910.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	I A	
<b>English High School</b>				
Leslie L. Cleveland Chester M. Bliss George H. Cain Joseph A. Coolidge S. Myrta Abbott	Head Master	Williams College, A.B. Amherst College, A.B., A.M. (Attended King's College) Harvard University, A.B., A.M. Normal School and Boston School of Domestic Science Radcliffe College, A.B. Maine Normal School, Boston Sloyd Training School Cambridge Training School. (Special Courses) Boston University, A.B., A.M. Boston Univ., A.B. Radcliffe, A.M.	Jan Sep Sep Mar Sep Sep	
Ethel E. Carr Jennie M. Cilley			Se	
Caroline Close			Se	
Bertha L. Cogswell Gertrude H. Crook			No Jan	
Mary L. Cunningham			Se	
Grace L. Deering			Se	
Grace E. Dennett Esther S. Dodge Elizabeth L. Huling Ellen P. Huling Maud A. Lawson Henrietta E. McIntire Mary Moulton Caroline A. Sawyer			Fel Se Oc Se Se Se Se Se	
Florence W. Smith Martha R. Smith Delia M. Stickney Annie F. Stratton Mabel D. Watson Bessie W. Howard* Martha L. Babbitt			Se Se Jan Se Se Se Jan	
Physical Trg. Secretary			Ma	
<b>Latin School</b>				
Leslie L. Cleveland Cecil T. Derry Herbert H. Palmer John I. Phinney Alfred R. Wightman		Head Master	Williams College, A.B. Harvard University, A.B., A.M. Amherst College, A.B. Yale University, A.B. Brown Univ., A.M. and Harvard Univ., Ph.D. Radcliffe College, A.B., A.M. Wellesley College, A.B. Radcliffe College, A.B. (Private schools and studied abroad) Radcliffe College, A.B. (Private schools and studied abroad) Boston University, A.B.	Jan Oc Sep De De Se Se Jan Se Se Oct Oct
Helen M. Albee Alice C. Baldwin Margaret S. Bradbury Isabel S. Burton				Se Se Jan
Alice D. Chamberlain Caroline Drew				Se Se
Elizabeth J. Fardy				Oct

\* Teaches in Latin School also.

## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Latin School—Continued</b>			
Elizabeth B. Flanders		Framingham Normal School. (Courses at Radcliffe)	Sept. 1905
Florence H. French		Radcliffe College, A.B.	Nov. 1909
Margaret J. Griffith		Radcliffe College, A.B.	Sept. 1903
Rose S. Hardwick		Smith College, A.B., A.M.	Oct. 1895
Mary C. Hardy		Smith College, A.B.	Dec. 1891
Mabel E. Harris		Radcliffe College, A.B.	Sept. 1897
Henrietta L. Kilpatrick		Royal University, A.B.	Sept. 1909
Louisa P. Parker		Westfield Normal School. (Courses at Radcliffe)	Mar. 1881
Ethel V. Sampson		Radcliffe College, A.B.	Sept. 1899
Jennie S. Spring		Smith College, A.B.	Mar. 1886
Annie S. Dodge	Secretary	Cambridge Latin School	Dec. 1892
<b>Rindge Manual Training School</b>			
John W. Wood, Jr.	Head Master	Harvard University, S.B.	Jan. 1899
Myra I. Ellis		Cambridge Training School. (Berlin University)	Feb. 1878
Helen W. Metcalf		Mt. Holyoke College, A.B.	Sept. 1898
Anna R. Ward		Indiana State University	Sept. 1909
Florence Waugh		Radcliffe College, A.B.	Sept. 1907
Francis L. Bain		Rindge M. T. School. (Courses in Engineering)	Nov. 1901
Otis H. Bramhall		Harvard University, A.B.	Apr. 1908
Robert W. Broderick		Boston Normal Art School	Sept. 1907
Winburn S. Cannell		Tufts College, A.B.	Sept. 1908
James F. Conlin		Harvard University, A.B., A.M.	Feb. 1905
Joseph B. Davison		Malden High School	Apr. 1909
Harrison G. Fay		Harvard University, A.B., A.M.	Sept. 1909
Evan W. Griffiths		Harvard University, A.B.	Sept. 1903
John C. Hall		Boston University, S.B.	Sept. 1908
Edward R. Markham		Wesleyan Academy. (Courses in Mech. Engineering)	Sept. 1903
Lester E. Markham		Chicopee High School. (Courses in Mech. Engineering)	Oct. 1908
James E. MacWhinnie		Harvard University, A.B.	Sept. 1901
Joseph M. Norton		Dartmouth College, A.B.	Sept. 1899
Walter B. Pope		Worcester Polytechnic Institute	Sept. 1909
Charles H. Richert		Boston Normal Art School	Dec. 1905
Frederic H. Sawyer		Harvard University, A.B., A.M.	Sept. 1908
James G. Telfer		Common Schools	June 1889
Albert L. Ware		Cambridge High School. (Me- chanical Courses.)	Aug. 1888
Howard A. Wiggin		Bates College, A.B.	Sept. 1908
Marion L. Pike	Secretary	Cambridge Latin School	Sept. 1909
<b>Agassiz School</b>			
Maria L. Baldwin	Prin. VII.	Cambridge High School. (Courses at Harvard)*	Sept. 1882
Agnes L. Tracy	VII.	Cambridge School High. (Rad- cliffe, 3 yrs.)	Oct. 1904
Catherine G. Kelley	VI.	Boston University, A.B.	Sept. 1908

\* Attended the Cambridge Training School.

## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Agassiz School—Continued</b>			
Helen G. Linehan	V.	Trinity Coll. Washington, A.B.°	Sept. 1909
Frances W. Dawson	IV.	Bradford Academy. (Special Courses)	Sept. 1902†
Abby S. Taylor	III.	Cambridge High School. (Course at Harvard)	Dec. 1854†
Mary A. Parsons	III.-II.	Private High School. (Attended Wellesley College)°	Mar. 1891
Grace C. Stedman	I.	Cambridge High. Normal Kind.	May 1896
<b>Boardman School</b>			
Elizabeth J. Karcher	Prin.	Cambridge High School. (Special Courses)*	May 1881
Blanche M. Gould	III.	Colby Academy, N. H. (Boston University, 2½ yrs.)°	Oct. 1904
Malvina M. Joslin	II.	Northfield, Vt., High School	May 1891
Lucy A. Roper	II.	Salem Normal School°	Sept. 1907
Lillian M. Cuddy	II.	Salem Normal School°	Dec. 1904
Mabel E. Blake	I.	North Andover High School	Jan. 1892
Pauline R. Conant	I.	Kindergarten Normal School°	Sept. 1909
Ellen T. Carroll	I.	Kindergarten Normal School°	Sept. 1907
<b>Cushing School</b>			
Maude A. Deehan	Prin. II.	Portland, Me., Normal School. (Special Courses.)	Dec. 1893
Sarah C. McManama	I.	Bridgewater Normal School°	Sept. 1907
<b>Ellis School</b>			
Edward O. Grover	Master	Adelphian Academy. Phillips Academy. (Course at Harvard)	Jan. 1879
Nellie A. Hutchins	IX.	Cambridge High School*	Sept. 1874
Caroline L. Blake	IX.	Wheaton Seminary	Sept. 1894
Adelaide G. Bunker	Special	Bridgewater Normal School	Nov. 1902
Ernest Libby	VIII.	Bridgewater Normal. (Attended Chicago University)	Sept. 1906
Charlotte L. Griswold	VIII.	New Britain Normal School	Sept. 1894
Louise H. Griswold	VIII.	Terryville High School	Sept. 1893
Edith T. Bates	VII.	Framingham Normal School	Sept. 1909
Emma A. Faulkner	VII.	(Attended Keene, N.H., High School)	Oct. 1887
Josephine C. Wyman	VII.	Farmington, Me., Normal School	Apr. 1903
Flora C. Ingraham	VI.	Providence Normal School	Oct. 1888
Mary A. Stephenson	VI.-V	Bridgewater Normal School	Sept. 1898
Sarah W. Mendell	V.	Tabor Academy. (Attended Quincy Training School)	Feb. 1901
Ellen J. Hunt	IV.	Salem Normal School	June 1883
<b>Felton School</b>			
C. Florence Smith	Prin. III.	Boston Normal School. (Harvard Summer School)°	Jan. 1888
Marcia R. Bowman	II.	Framingham Normal School°	Sept. 1895
Carrie H. Smith	II.-I.	Cambridge High School*	Jan. 1875
Eleanor M. Stevens	I.	Bangor, Me., Normal School°	Oct. 1903

\*Attended the Cambridge Training School.

°Attended the Wellington Training School.

†Taught previous to this and resigned.

‡Was out of school from 1901 to 1905.

TABULAR VIEW—Continued.

Names and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
School Colesworthy	Master	Bowdoin College, A.B., and Har- vard College, A.B.	Sept. 1903
Coburn	IX.	Lowell High School. (Attended Private Seminary)	Sept. 1901
Higgins	Special	Cambridge High School	Sept. 1893‡
Newell	VIII.	Salem Normal School°	Oct. 1904
Senter	VII.	Medway High School°	Sept. 1898
Bole	VII-VI.	Radcliffe College, A.B.°	Sept. 1906
Wentworth	VI.	Salem Normal School°	Oct. 1902
Doran	V.	Salem Normal School°	Nov. 1893
M. Webster	V.	N. H. Training School. (At- tended Normal School)	Apr. 1905
Hall	IV.	Cambridge High School°	May 1897‡
Mapin	IV.	(Attended Indiana Normal School)	Oct. 1904
Perkins	III.	Salem Normal School	Sept. 1904
M. Baker	III.	Radcliffe College, A.B.°	Sept. 1905
Escott	II.	Cambridge English High School°	Oct. 1898
Wylor	II.	Cambridge High School°	May 1886
Gauthier	I.	Salem Normal School°	Dec. 1907
McNulty	I.	Robinson Seminary°	Nov. 1905
School Ledy	Prin. I.	Normal School and School of Ex- pression. (Special Courses)	Sept. 1880
T. Sullivan	III.	Salem Normal School°	Dec. 1902
F. Sanderson	II.	Salem Normal School°	Nov. 1900
Billings	I.	Cushing Academy. (Attended Quincy Training School)	May 1893
School Fulloney	Prin.	Cambridge Training School. (Special Courses)	Sept. 1878
Doran	III.	Salem Normal School. (Special Courses)°	Sept. 1895
R. Peters	III.	Newton High School. (Special Courses)°	Oct. 1892
Leonard	III.	Salem Normal School°	Sept. 1900
Donovan	II.	Cambridge English High School. (Salem Normal, 2 yrs.)°	Dec. 1905
McHugh	II.	Salem Normal School°	Oct. 1894
Callahan	I.	Salem Normal School	Sept. 1883
L. Dinneen	I.	Salem Normal School°	Dec. 1908
Geary	I.	Salem Normal School°	Jan. 1909
McGarty	I.	Coburn Classical Institute, Me. (Special Courses)	Sept. 1896
L. McElroy	Ungraded	Salem Normal School	May 1888
School MacGregor	Master	Richmond, Me., High School. (Attended Hyannis Normal)	Sept. 1906
W. Wellington	IX.	Wayland High School	Sept. 1868

ended the Wellington Training School.  
left previous to this and resigned.

## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Harvard School—Cont'd</b>			
Estelle J. French	IX.	Cambridge High School. (Courses at Harvard)*	Sept. 1872
Hortense O. Young	IX.	Fall River High School	Sept. 1883
Annie M. Street	Special	Westfield Normal. (Attended Summer Institute)	Sept. 1889
Gertrude P. McCusker	VIII.	Salem Normal School°	Sept. 1907
Honora F. O'Brien	VIII.	Gloucester High School. (At- tended Boston Normal)	Sept. 1909
Addie L. Bartlett	VII.	Castine, Me., Normal School. (Special Courses at Harvard)	Sept. 1890
Waitie M. Nash	VII.	Bates College, Me. (Special Courses at Tufts and Rad- cliffe)	Dec. 1902
Lucy E. Sullivan	VII.	Framingham Normal School	Nov. 1909
Frances Fabyan	VI.	Cambridge High School*	Jan. 1878
Laura L. Parmenter	VI.	Cambridge Latin School. (At- tended Summer Normal)°	Sept. 1898
M. Blanche Craig	VI.	Cambridge Latin School. (Rad- cliffe, 2 yrs.)°	Sept. 1905
Margaret M. Fearnis	V.	Salem Normal School°	Mar. 1897
Annie B. Lowell	V.	Portland, Me., Normal School.	Apr. 1898
Carolyn E. MacDonald	IV.	Salem Normal School°	Jan. 1909
Louise C. Patterson	IV.	Northampton High School. (College work at Harvard)	Dec. 1892
Elizabeth L. Setchell	IV.	Salem Normal School	Sept. 1888†
<b>Houghton School</b>			
John W. Freese	Master	Tufts College, A.B.	Oct. 1883
Blanche E. Townsend	IX.	Salem Normal School	Sept. 1900
Alice P. Fay	Special	(Attended Wellesley College)°	Sept. 1888
Winifred L. Kinsley	VIII.	Boston Normal School°	Sept. 1888†
Mary L. Ells	VIII.-VII.	Hanover Academy. School of Science, Boston	Oct. 1886
Margaret J. Penney	VII.	Cambridge High School*	Apr. 1882
Katharine F. Callahan	VI.	Salem Normal School°	Nov. 1903
Hattie Shepherd	VI.	Cambridge High School*	Sept. 1882
Katharine M. Greene	V.	Salem Normal School°	Sept. 1904
R. Emily Penney	V.	Salem Normal School	June 1893
Grace S. Beckwith	IV.	Westfield Normal School°	Sept. 1904†
Gertrude A. Kenney	IV.	Bridgewater Normal School°	Dec. 1906
Anna G. Scannell	IV.	Salem Normal School	Sept. 1905
Mary G. Snow	III.	Salem Normal School°	Sept. 1905
Margaret L. Cosgrove	II.-I	Boston Normal School°	Sept. 1909
Catherine M. Doran	II.-I	Salem Normal School°	Sept. 1904
<b>Kelley School</b>			
H. Warren Foss	Master	Colby College, Me., A.B.	Sept. 1904
Catharine A. McLean	IX.	Salem Normal School°	Oct. 1899
Ellen A. Kidder	Special	(Teachers' Courses and Sum- mer Courses)°	Oct. 1890
Ethel I. Murch	VIII.	Cambridge English High School. (Summer School)°	Oct. 1899
Emma J. Houlahan	VII.	Salem Normal School°	Sept. 1903

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

† Taught previous to this and resigned.

‡ Resigned for one year and was reappointed.

## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>ley School—Continued</b>			
r D. Paul	VII.-VI.	Boston University, A.B.°	Oct. 1899
M. Horgan	VI.	Salem Normal School°	Sept. 1908
L. Power	V.	Salem Normal School°	Oct. 1899
M. Dutton	V.	Bridgewater Normal School°	Oct. 1899
L. Feeny	IV.	Salem Normal School°	Sept. 1907
ret B. McCullough	IV.	Salem Normal School°	Sept. 1908
V. Connelly	III.	Salem Normal School°	Sept. 1908
E. Regan	III.	Salem Normal School°	Oct. 1899
M. Ford	II.	Truro, N.S., Normal School	Oct. 1904
E. Moran	II.	Salem Normal School°	Oct. 1904
W. C. Fuller	II.-I.	(Vermont Academy, 2 yrs. Hy- annis Normal, 2 summers)	Sept. 1909
L. Cook	I.	Framingham Normal School	Apr. 1905
r. Oakes	I.	Warren High School. (Martha's Vineyard Summer School, 5 yrs.)	Oct. 1898
<b>ell School</b>			
es E. Whoriskey	Prin. II.	Cambridge Training School	Apr. 1881
V. Collier	III.	Boston Normal School	Sept. 1888
eth B. Gahm	I.	Cambridge High School*	Sept. 1882
E. Whoriskey	I.	Kindergarten Training School°	Sept. 1895
<b>ell School</b>			
ia A. Minard	Prin. III.-II.	Truro, N. S., Normal School	Oct. 1893
3. Poole	V.-IV.	Salem Normal School°	Feb. 1906
J. McElroy	I.	Salem Normal School°	Dec. 1891
<b>rill School</b>			
M. Harris	Prin.	Cambridge High School. (Spe- cial Courses)*	Jan. 1876
M. Davis	III.	Baltimore High School. (Mary- land Normal, 1 year)°	May 1900
rine Pendergast	III.	Warren High School°	Sept. 1909
ette E. de Rochemont	II.	Portsmouth, N.H., Normal School	Sept. 1894
F. Walker	II.	Kennebunk, Me., High School. (Attended Com. College)	Sept. 1899
1 B. Magwire	I.	Framingham Normal School°	June 1894
ide S. Thayer	I.	Salem Normal School°	Sept. 1903
<b>se School</b>			
A. Townsend	Prin.	Farmington, Me., Normal School	Apr. 1882
E. Towle	IX.	Westfield Normal School	Feb. 1874
ia E. Curtis	IX.-VIII.	Plymouth, N.H., Normal School	Dec. 1907
Holmes	Special	Rhode Island Normal School	Sept. 1895
E. Murray	VIII.	Cambridge Latin School. (Rad- cliffe, 1 year)°	Sept. 1908
A. O'Connell	VII.	Bridgewater Normal School°	Sept. 1900
ce E. Hunter	VII.-VI.	Castleton, Vt., Normal School	Feb. 1900
eth H. Richards	VI.	Robinson Seminary, N. H.°	Jan. 1899
M. Soulée	VI.-V.	Everett High School	Sept. 1893
J. Waldron	V.	Susquehanna Collegiate Insti- tute	Sept. 1904

Attended the Cambridge Training School.  
Attended the Wellington Training School,

## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Morse School—Continued</b>			
Alice E. May	IV.	Bridgewater Normal School	Oct. 1893
Mary E. Warren	IV.	Lawrence Academy, Groton	Jan. 1902
Elizabeth J. Baldwin	III.	Boston Normal School <sup>o</sup>	Jan. 1886
Edith M. Carman	III.	Salem Normal School <sup>o</sup>	Dec. 1904
Christina R. Denyven	II.	Bridgewater Normal School <sup>o</sup>	Jan. 1888
Helen Montague	II.	Cambridge High School. (Wel- lesley, 2 yrs.) <sup>o</sup>	Sept. 1900
Constance E. Yeames	I.	Salem Normal School <sup>o</sup>	Jan. 1906
Grace E. Lally	I.	Boston Normal School <sup>o</sup>	Jan. 1909
<b>Otis School</b>			
Ellen N. Leighton	Prin.	Cambridge High School	Apr. 1880 <sup>†</sup>
Gertrude H. Glavin	III.	Bridgewater Normal School	Nov. 1909
Luella M. Marsh	III.	Cambridge High School <sup>*</sup>	Feb. 1884
Julia S. Lewis	II.	Frammingham Normal School <sup>o</sup>	Nov. 1909
Margaret L. Sullivan	II.	Salem Normal School <sup>o</sup>	Oct. 1893
Frances Allen	I.	Cambridge High School <sup>*</sup>	Jan. 1873
Josephine M. Doherty	I.	Cambridge High School <sup>*</sup>	Sept. 1877
Anna N. Sullivan	I.	Boston Normal School <sup>o</sup>	Mar. 1901
<b>Parker School</b>			
Mary A. Knowles	Prin. III.	Howe High School, Billerica. (Special Courses)	Sept. 1897
Mattie S. Cutting	II.	(Attended Worcester Normal School)	Oct. 1898
Harriet R. Harrington	II.	St. Johnsbury Academy. (Spe- cial Courses) <sup>o</sup>	Sept. 1897
Irene FitzGerald	II.	Salem Normal School <sup>o</sup>	Sept. 1909
Agnes Marchant	I.	Mt. Holyoke Seminary. Bridge- water Normal School. (Spe- cial Courses) <sup>o</sup>	Oct. 1894
Rose M. O'Toole	I.	Fitchburg Normal School. (Post- graduate Course, 2 yrs.)	Jan. 1910
<b>Peabody School</b>			
H. Herbert Richardson	Master	Tufts College, A. B.	Sept. 1904
Charlotte A. Ewell	IX.	Cambridge High School	Mar. 1886
Katherine L. Carr	IX.	Postdam, N. Y., Normal School	Nov. 1901
Anna F. Bellows	Special VIII.	Lancaster Academy	Sept. 1889
Alice M. Tufts	VIII.	Salem Normal School	Sept. 1896
Isadore M. Thompson	VII.	Maine Wesleyan Seminary <sup>o</sup>	Sept. 1904
Susan C. Allison	VII.-VI.	Cambridge High School. (At- tended the Boston Normal School) <sup>o</sup>	Sept. 1889
Bernice E. Bartlett	VI.	Emerson School of Oratory <sup>o</sup>	Sept. 1907
Madeleine Wood	V.	Radcliffe College, A. B.	Sept. 1907
Tina M. King	IV.	Bridgewater Normal School <sup>o</sup>	Sept. 1908
Blanche C. Trefethen	IV.	Normal Dept. Robinson Semin- ary <sup>o</sup>	Mar. 1895 <sup>†</sup>
Anna H. Welsh	III.	(Attended Wellesley College 2 yrs.) <sup>o</sup>	Sept. 1901
Susan E. Wyeth	II.	Cambridge High School	Mar. 1889

\*Attended the Cambridge Training School.

<sup>o</sup>Attended the Wellington Training School.<sup>†</sup>Taught previous to this and resigned.<sup>†</sup>Resigned for one year and was reappointed.



## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Body School—Continued</b>			
Trefethen	II.	Normal Dept. Robinson Sem-inary <sup>o</sup>	Apr. 1899
A. Goodere	I.	Fitchburg Normal School	Jan. 1910
<b>nam School</b>			
rick B. Thompson	Master	Bridgewater Normal School	Nov. 1894
e M. Mixer	IX.	Bridgewater Normal School	Sept. 1905
S. Faddack	IX.-VIII.	Nantucket High School	Sept. 1880
Clark	Special	Cincinnati Normal School	Nov. 1901
M. Grieves	VIII.	Cambridge High School*	Oct. 1882
ret F. O'Keefe	VIII.-VII.	Salem Normal School <sup>o</sup>	Sept. 1900
E. White	VII.	Bridgewater Normal School	Jan. 1906
M. R. Sturtevant	VII.	Wellesley College, A.B. <sup>o</sup>	Dec. 1907
A. Kerrigan	VI.	Salem Normal School <sup>o</sup>	Oct. 1904
L. P. Collins	VI.	(Attended Plymouth, N. H., Normal School)	Sept. 1893
E. McKearin	VI.	Wellesley College, A.B.	Sept. 1907
ia Chisholm	VI.-V.	Gloucester Training School	Sept. 1906
e F. Wilson	V.	Salem Normal School <sup>o</sup>	May 1900
A. Carmichael	V.-IV.	Salem Normal School <sup>o</sup>	Feb. 1889
A. Trelegan	IV.	Salem Normal School <sup>o</sup>	Dec. 1891
H. Cooter	IV.	Salem Normal School <sup>o</sup>	Sept. 1908
<b>d School</b>			
ret T. Burke	Prin. II.	Salem Normal School <sup>o</sup>	May 1886
eth G. Nelligan	III.	(Attended Salem Normal School) <sup>o</sup>	Dec. 1899
W. Ruggli	II.-I.	Bridgewater Normal School. (Special College Courses) <sup>o</sup>	Sept. 1900
A. Robinson	I.	High School. (Special Courses)	Apr. 1886
<b>erside School</b>			
eth A. Tower	Prin. III.	Cambridge High School*	Dec. 1870
A. Burke	II.	Salem Normal School*	Sept. 1885
da M. Alger	I.	Cambridge High School*	May 1880
e A. Thayer	I.	Boston Normal School <sup>o</sup>	Sept. 1896†
<b>erts School</b>			
ortimer MacVicar	Master	Acadia College, N. S., A.M.	Sept. 1900
A. Bailey	IX.	Caledonia Academy	May 1884
ne M. Williams	VIII.	Cambridge High School*	Sept. 1880
ide A. White	VIII.-VII.	Radcliffe College, A.B.	Sept. 1906
r S. Townsend	VII.	Brown University, Ph.B.	Nov. 1909
. Smith	VII.	(Attended Private High School)	Jan. 1875
M. Adams	VI.	Maine Normal School	Sept. 1888
n B. Kenney	VI.	Maine Normal School	Nov. 1886
f. Litchfield	VI.	Boston Normal School <sup>o</sup>	May 1891
A. Murray	V.	Trenton, N. J., Normal School	Sept. 1906
M. Brigham	V.	Winchendon High School	Apr. 1882
E. Quirk	V.	Salem Normal School <sup>o</sup>	Dec. 1909
P. Blair	IV.	(Attended Park College)	Sept. 1882
eth M. Breslin	IV.	Salem Normal School <sup>o</sup>	Mar. 1902
E. Magurn	IV.	Framingham Normal School <sup>o</sup>	Sept. 1907

\* Attended the Cambridge Training School.

† Attended the Wellington Training School.

: Taught previous to this and resigned.

## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Roberts School—Continued</b>			
Marjorie H. Lenox	III.	Salem Normal School°	Sept. 1906
Lucy S. Carter	III.	Lowell Normal School	Apr. 1910
<b>Russell School</b>			
Arthur C. Wadsworth	Master	Harvard Univ., B.S. Wooster, Ohio, Univ., A.M., Ph.D.	Sept. 1897
Mary S. Bingham	IX.	Salem Normal School. (Special work at Radcliffe)	Sept. 1904
Louise I. MacWhinnie	IX.-VIII.	Cambridge Latin School. (Spec- ial work at Radcliffe and Boston Univ.)°	Sept. 1903
Fannie P. Browning	VIII.	Fitchburg High School	Sept. 1880
Helen M. Westgate	VII.	Bridgewater Normal School	Nov. 1909
Ida J. Mahoney	VII.	Frammingham Normal School°	Apr. 1903
Faith Foxcroft	VI.	Mt. Holyoke College, B.A.°	Nov. 1906
Adelaide D. Billings	V.	Bridgewater Normal School	Sept. 1907†
H. Maud Maclean	V.	University of N. B., B.A.°	Mar. 1896
Josephine F. Rowe	IV.	Salem Normal School°	Mar. 1909
Mary E. Sullivan	III.	Salem Normal School°	Feb. 1909
Carrie J. Allison	I.	Cambridge High School. (Pri- vate School)°	Sept. 1896
<b>Shepard School</b>			
Evelyn J. Locke	Prin.	High School. (Attended Boston Training School)	Jan. 1880
Alice M. Gage	VII.	High School. (Mt. Holyoke College, 2 yrs.)	Mar. 1899
Mary F. Calnane	VI.	Salem Normal School	Dec. 1896
Florence M. Dudley	VI.	Salem Normal School°	Dec. 1897
Dora Leadbetter	V.	Frammingham Normal School. (Courses at Harvard)	Sept. 1906
Theresa H. Mahoney	V.	Frammingham Normal School°	Sept. 1898
Nettie I. Haft	IV.	Salem Normal School°	Sept. 1906
Elizabeth J. O'Keefe	IV.	Kindergarten Normal School°	Oct. 1905
Anna E. Welch	IV.	Salem Normal School°	Sept. 1904
Mary M. Gilman	III.	High School	Jan. 1883
Ellen T. O'Keefe	III.	Boston Normal School°	Sept. 1903
<b>Sleeper School</b>			
A. Estelle Ingraham	Prin.	Boston Normal School. (Special Courses)	Jan. 1883
Mary A. Macklin	VI.	Salem Normal School°	Dec. 1902
Melissa M. Lloyd	V.	High School	Sept. 1893†
Evelyn M. Dormer	IV.	Salem Normal School°	Dec. 1897
Butella E. L. Conland	III.	Normal School	Dec. 1898
Elizabeth O. Haynes	II.	Normal Dept. of Robinson Sem- inary, N. H.°	Nov. 1900
Helena Murphy	II.-I.	Salem Normal School°	Mar. 1908
Jennie B. Ross	I.	Salem Normal School°	Sept. 1903
<b>Tarbell School</b>			
Josephine Day	Prin. III.	Farmington, Me., Normal School°	Sept. 1897
Millie A. Isaac	II.	Salem Normal School°	Sept. 1909

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

† Taught previous to this and resigned.

## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>1 School—Continued</b>			
Pierce	II.-I.	Gloucester High School. (Salem Normal, one year. Special Courses)°	Oct. 1890
M. Seils	I.	Salem Normal School°	Sept. 1909
<b>2 School</b>			
Avery	Prin.	Cambridge High School. (Special Courses)	Apr. 1881†
Boland	V.	Salem Normal School°	Jan. 1898
A. Goodwin	IV.	Farmington, Me., Normal School	Apr. 1910
Dacey	IV.	Salem Normal School°	Jan. 1909.
W. Davis	III.	Maryland Normal School°	Dec. 1902
Carmichael	II.	Salem Normal School°	Mar. 1908
Maguire	II.	Lowell Normal School°	Sept. 1903
I. Dowd	I.	Lowell Normal School°	Nov. 1905
Rea	I.	Castine, Me., Normal School	Sept. 1909
B. Goodwillie	Ungraded	Salem Normal School°	Mar. 1906
<b>3 School</b>			
Hagan	Master	Amherst College, A.B.	Jan. 1910
A. Townsend	IX.	Framingham Normal School	Sept. 1887
Whitcher	IX.-VIII.	Tilton Seminary	Sept. 1869
Plympton	VIII.	Salem Normal School	Sept. 1898†
Short	VII.	Smith College, A.B.°	Dec. 1904
Westcott	VII.	Boston Normal School	Sept. 1884
V. Cronin	VI.	Boston Normal School°	Oct. 1902
I. Kenney	VI.	Salem Normal School°	Mar. 1901
Fletcher	V.	Cambridge High School*	Feb. 1874
Bousquet	V.	Salem Normal School°	Sept. 1909
Cooter	IV.	Salem Normal School°	Sept. 1902
MacLeod	IV.	Radcliffe College, A.B.°	Mar. 1906
Floyd	IV.	Boston High School	Sept. 1909
<b>4 School</b>			
Billings	Master	Bridgewater Normal School	Sept. 1872
Phinney	IX.	(Attended Bridgewater Normal School)	Oct. 1881
N. Hanson	IX.	(Attended N.H. Normal School)	Mar. 1890
Billings	Special	Bridgewater Normal School	Sept. 1889
Chase	VIII.	Cambridge Training School	Sept. 1873
E. Shepard	VIII.	Salem Normal School°	Oct. 1890
I. Armstrong	VII.	Harvard College, A.M.	Sept. 1909
Hills	VII.	Framingham Normal School	Sept. 1893
E. Mann	VII.	(Attended Smith College)	Sept. 1906
B. Duffy	VI.	Salem Normal School°	Apr. 1902
Nason	VI.	Gorham, Me., Normal School	Dec. 1906
V. Reid	VI.	Boston Normal School°	Sept. 1888
Slater	VI.	Westfield Normal School	Sept. 1899
Ashley	V.	Framingham Normal School	Sept. 1896
Curtis	V.	Bridgewater Normal School	Mar. 1898
Colbert	V.-IV.	Boston Normal School°	Sept. 1909
Field	IV.	Bridgewater Normal School	Sept. 1909

† Attended the Cambridge Training School.  
 ‡ Attended the Wellington Training School.  
 \* Taught previous to this and resigned.

## TABULAR VIEW—Continued.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Da App m
<b>Webster School—Continued</b>			
Gertrude I. Johnson	IV.	Worcester Normal School	Sept.
Susan I. Downs	IV.	High School	Mar.
<b>Wellington School</b>			
Herbert H. Bates	Master	Westfield Normal School	Oct.
Mary I. Vinton	Supervisor	Salem Normal School	Mar.
Margaret Kidd	Supervisor	Cambridge High School*	Sept.
Sarah J. Gunnison	Supervisor	Cambridge High School*	Sept.
Carrie H. Stevens	IX.	Farmington, Me., Normal School	Nov.
Grace F. Chamberlain	VIII.	Frammingham Normal School,	Apr.
Nina L. Kendall	VIII.	Randolph, Vt., Normal School	Sept.
Marion B. Alley	VII.	Radcliffe College, A.B.°	Sept.
Eleanor E. O'Brien	VII.	Salem Normal School°	Sept.
Ellen A. Sullivan	Clerk	Salem Normal School°	Sept.
<b>Willard School</b>			
Katharine E. Hayes	Prin.	Frammingham Normal School	Sept.
Mary E. G. Harrington	III.	Cambridge High School*	Apr.
Alice Martin	III.	Teachers' Coll., Columbia Univ.	Apr.
Elizabeth D. Watson	III.	High School. (Course at Bos- ton University)	Sept.
Annie M. Sands	III.-II.	Bridgewater Normal School°	Nov.
Elizabeth M. Crowley	II.	Salem Normal School°	Dec.
Katherine M. Lowell	II.	High School	Sept.
Grace R. Woodward	II.	Cambridge High School*	Oct.
Agalena Aldrich	I.	Cushing Academy. (Wellesley College, 2 yrs.)°	Sept.
Mary A. Flynn	I.	Frammingham Normal School	Feb.
Ella F. Gulliver	I.	Eastern Normal School, Me.	Apr.
Agnes L. Moran	I.	Salem Normal School°	Sept.
<b>Wyman School</b>			
Addie M. Bettinson	Prin. II.	Cambridge High School*	Feb.
Katherine L. Dolan	II.	Salem Normal School°	Nov.
Mary H. Brooks	I.	Bridgewater Normal School°	Sept.
Genevieve S. Flint	I.	Worcester Normal School°	Nov.
Mary E. Mullins	I.	Salem Normal School°	Sept.
<b>Fresh-Air School</b>			
Anna P. Butler	Prin.	Trinity Coll., Washington, A.B.°	Sept.
<b>KINDERGARTENS</b>			
<b>Boardman</b>			
Florence Rice	Prin.	Kind. Training School. (Rad- cliffe College, 2 yrs.)	Sept.
Dorothea Cutler	Asst.	Kind. Training School°	Sept.
<b>Corlett</b>			
Annie M. Dodd	Prin.	Kind. Training School	Sept. 1
Frances W. Roberts	Asst.	Kind. Training School	Feb. 1

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

‡ Taught previous to this and resigned.

## REPORT OF SCHOOL COMMITTEE

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**TABULAR VIEW—Continued.**

Names and Teachers	Grade	Where Graduated Highest Institution Also other Courses	Date of Appointment
ARTISTS—Cont'd			
Shepherd	Asst.	Kind. Training School. (Special Courses)	Sept. 1897
Berthold*	Prin.	Kind. Training School	Sept. 1889
Crane	Act. Prin.	Kind. Training School	Dec. 1904
Witter	Asst.	Kind. Training School°	Sept. 1909
Winn			
Lesley	Prin.	Kind. Training School	Sept. 1897
Lesley	Asst.	Kind. Training School	Mar. 1899
Wates	Prin.	Kind. Training School. (Berlitz School)	Sept. 1889
W. Leighton	Prin.	Kind. Training School. (Special Courses)	Sept. 1896
Halliday	Asst.	Kind. Training School	Sept. 1906
Morse*	Prin.	Kind. Training School	Dec. 1897
Ward	Act. Prin.	Kind. Training School°	Sept. 1905
Wike	Asst.	Kind. Training School°	Sept. 1909
W. W. W.			
W. W. W.	Prin.	Kind. Training School. (graduate Courses)	Nov. 1898
W. W. W.	Asst.	Kind. Training School°	Apr. 1904
E. Ryan	Prin.	Kind. Training School. (graduate Courses)	Sept. 1889
W. W. W.	Asst.	Kind. Training School°	Sept. 1908
W. W. W.			
W. W. W.	Prin.	Kind. Training School	Oct. 1893
W. W. W.	Asst.	Kind. Training School°	Sept. 1908
W. W. W.			
W. W. W.	Prin.	Kind. Training School	Mar. 1896
W. W. W.	Asst.	Kind. Training School°	Jan. 1906
W. W. W.			
W. W. W.	Prin.	Kind. Training School	May 1893
W. W. W.	Asst.	Kind. Training School	Apr. 1907
A. M.			
W. W. W.	Prin.	Kind. Training School	Sept. 1897
W. W. W.	Asst.	Kind. Training School	Apr. 1900

ended the Wellington Training School.

leave of absence for study or travel in accordance with the Rules of the School Committee.

## TABULAR VIEW—Concluded.

Schools and Teachers	Grade	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>KINDERGARTENS—Cont'd</b>			
<b>Willard, P. M.</b>	Prin.	Kind. Training School	Sept. 1897
Jennie S. Clough	Asst.	Kind. Training School	Dec. 1903
Eva C. Katon			
<b>Wyman</b>			
Clara A. Hall	Prin.	Kind. Training School. (Spe- cial Courses)	May 1892
Mary E. Valpey	Asst.	Kind. Training School	Jan. 1907
<b>Music</b>			
Frederick E. Chapman	Director	(Attended Courses at Harvard)	Jan. 1891
Annie R. Hooper	Assistant	Robinson Seminary. (Attended Boston Conserv. of Music)	Jan. 1907
<b>Drawing</b>			
Peter Roos	Director	(Courses in Sweden and in the Normal Art School)	Oct. 1896
Lucia N. Jennison	Assistant	Worcester Normal School. Normal Art School	Dec. 1893

<b>Teachers of Sloyd</b> .....	Harold E. Mason Clarence L. Mosher
<b>Teachers of Sewing</b> .....	Agnes Gordon, Director Katharine A. Burke Nancy T. Dawe Alice H. Nay
<b>Permanent Substitute</b> .....	Mary A. Driscoll
<b>Unassigned Teachers</b> .....	Emma A. Scudder, High School Annie B. Josselyn, Grammar Schools Emily R. Pitkin " " Sally N. Chamberlain, Primary Schools Ellen A. Cheney " " Georgianna P. Dutcher " " M. Elizabeth Evans " " Frances E. Pendexter " " Mary E. Sawyer " "
<b>Master Emeritus, Latin School</b> .....	William F. Bradbury
<b>Master Emeritus, Thorndike School</b> .....	Ruel H. Fletcher
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<b>Superintendent of Schools</b> .....	Frank E. Parlin
<b>Supervisor of Primary Schools</b> .....	Mary E. Lewis
<b>Agent and Secretary</b> .....	Sanford B. Hubbard
<b>Clerks</b> .....	Constantine J. Church Althea B. Frost Sadie E. Kimball
<b>Porter</b> .....	John H. Lemon
<b>Truant Officers</b> .....	Lucian S. Cabot John Carmichael William H. Porter Thomas F. Riley

## SALARIES OF TEACHERS AND SCHOOL OFFICERS.

## LATIN SCHOOL AND ENGLISH HIGH SCHOOL.

Head Masters . . . . .	\$3,000 00
Masters . . . . .	2,000 00
Masters' Assistants . . . . .	1,200 00
Teachers, first year . . . . .	700 00
with an annual increase of \$50 until \$950, the maximum, is reached.	
Assistant Teachers, first year . . . . .	500 00
"    "    second year and each succeeding year . . . . .	600 00

## RINDGE MANUAL TRAINING SCHOOL.

Head Master . . . . .	\$3,000 00
Master's Assistant . . . . .	1,300 00
Teachers' salaries range from \$900 to \$1,500.	

## WELLINGTON TRAINING SCHOOL.

Master . . . . .	\$2,800 00
Supervising Teachers (three), first year . . . . .	900 00
"    "    second year and each succeeding year . . . . .	1,000 00
Master's Assistant, first year . . . . .	800 00
"    "    second year and each succeeding year . . . . .	900 00
Teachers of the eighth grade . . . . .	700 00
"    of the seventh grade . . . . .	450 00
"    in the training class from \$200 to \$450.	

## GRAMMAR AND PRIMARY SCHOOLS AND KINDERGARTENS.

Masters of grammar schools, maximum . . . . .	\$2,300 00
Sub-masters, first year . . . . .	1,000 00
with an annual increase of \$100 until \$1,400, the maximum, is reached.	
Masters' Assistants, first year . . . . .	800 00
"    "    second year and each succeeding year . . . . .	900 00
Teachers of the ninth grade, first year . . . . .	750 00
"    "    second year and each succeeding year . . . . .	800 00
Special teachers in grammar schools, first year . . . . .	700 00
"    "    second year and each succeeding year . . . . .	750 00
Principals of primary schools, first year . . . . .	700 00
"    "    second year and each succeeding year . . . . .	750 00
with five dollars additional for each room under her supervision.	
Teachers of grammar and primary schools and of kindergartens, first year . . . . .	450 00
with an annual increase of \$50 until \$700 is reached.	
Assistant Teachers of grammar and primary schools and of kindergartens, first year . . . . .	450 00
with an annual increase of \$50 until \$600 is reached.	

## SUBSTITUTES.

The pay of a substitute teacher in a high school, who is employed temporarily, is \$2.50 a day; if employed one month or more it is at the rate of \$500, \$600, or \$700 a year, the sum to be determined by the superintendent, who shall consider the experience of the teacher and the position to be filled, in fixing the sum.

The pay of a teacher who is employed temporarily as a substitute in a grammar school, a primary school, or a kindergarten, is \$1,00 a session; if employed one month or more, it is at the rate of \$450 a year.

## SPECIAL TEACHERS AND OFFICERS.

Director of Music	\$2,000 00
Assistant Teacher in Music	850 00
Director of Drawing	2,000 00
Assistant Teacher in Drawing	850 00
Instructor in Physical Training in the High Schools	950 00
Director of Sewing	700 00
Teachers of Sewing	650 00
Superintendent of Schools	3,500 00
Supervisor of Primary Schools	1,350 00
Agent of the School Committee	2,450 00
Truant officers (four are employed)	1,000 00
Secretary of the School Committee	400 00
Secretary and Librarian of the Latin School	650 00
Secretary and Librarian of the English High School	650 00
Secretary and Librarian of the Rindge Manual Training School	650 00

## EVENING SCHOOLS.

Principal of High School	per evening	\$4 00
Principal of Elementary Schools	" "	3 00
Teachers in Drawing Schools	" "	3 00
Teachers in High School	" "	2 00
Teachers in Elementary Schools	" "	1 50

## CHANGES IN TEXT-BOOKS.

The following books have been adopted by the Board during the year from April 1, 1909 to April 1, 1910:

**FOR THE RINDGE MANUAL TRAINING SCHOOL.** Cuentos Castellanos, (A Spanish Reader); Schoch's Introduction to Geometry in place of Bradbury's Elementary Geometry.

**FOR THE HIGH SCHOOLS.** Chardenal's Complete French Course, Revised Edition, in place of the old edition; Baker and Inglis's Latin Prose Composition; Pearson's Latin Prose Composition; Gregg's Speed Practice; Marianela, (A Spanish Reader); Willkommen in Deutschland; Young's Astronomy, Revised Edition, in place of the old edition.

**FOR THE EVENING SCHOOLS.** English for Foreigners, by Sara R. O'Brien.

**FOR THE GRAMMAR AND PRIMARY SCHOOLS.** The Quincy Word List, by Frank E. Parlin, in place of Harrington's Speller; an elementary Reading Course, as follows:

## GRADE I.

Aldine Primer	Spaulding and Bryce
Aldine First Reader	Spaulding and Bryce



ginnets' Primer.....	Bryce
ife Primer.....	Blaisdell
ginnets' First Reader.....	Bryce
ife First Reader.....	Blaisdell
y's First Reader.....	
ha Primer.....	Holbrook
ee Dwellers.....	Dopp
Goose Nursery Rhymes.....	Welsh
d the Fox.....	Smythe
ery Classics.....	O'Shea

## GRADE II.

ha Primer.....	Holbrook
Second Reader.....	Spaulding and Bryce
ife Second Reader.....	Blaisdell
y's Second Reader.....	
if Oak Books, Book I.....	Norton
rlly Cave Men.....	Dopp
ories and Fables.....	Baldwin
Myths.....	Holbrook
t's The Tales of Mother Goose.....	O'Shea
orld Wonder Stories.....	O'Shea
the World, Book I.....	Carroll
Goose Village.....	Bigham

## GRADE III.

Third Reader.....	Spaulding and Bryce
ife Third Reader.....	Blaisdell
y's Third Reader.....	
and Folk Stories.....	Scudder
ndersen's Stories.....	Andersen
Days of Giants.....	Brown
æk Stories.....	Baldwin
ter Cave Men.....	Dopp
ventures of a Brownie.....	Mulock
ple and Little People, etc.....	Shaw
Household Tales.....	Grimm
of Great Americans for Little Americans.....	Eggleston

## GRADE IV.

's.....	Burt
Hiawatha.....	Longfellow
of Long Ago.....	Kupfer
amous Stories Retold.....	Baldwin
nd Heroes.....	Holbrook
beauty.....	Sewall
rrers and Explorers.....	Shaw
Wonderland.....	Carroll
ig of the Golden River.....	Ruskin
1 Nights.....	
of American Life and Adventure.....	Eggleston

## GRADE V.

as, The Hero of Ithaca.....	Burt
rse Stories.....	Bradish
ildren's Hour.....	Longfellow
apes and Brownies.....	Ewing
ok of Legends.....	Scudder

A Wonder Book.....	Hawthorne
Through the Looking Glass.....	Carroll
Child Life in Poetry and Prose.....	Whittier
The Children of the Cold.....	Schwatka
Robinson Crusoe.....	DeFoe
Boy Life.....	Howells

## GRADE VI.

The Story of the Greeks.....	Guerber
Gulliver's Travels.....	Swift
Swiss Family Robinson.....	Wyss
Tanglewood Tales.....	Hawthorne
The Little Lame Prince.....	Craik
King Arthur Stories from Malory.....	
The Story of the English.....	Guerber
Grandmother's Story of Bunker Hill.....	Holmes
A Dog of Flanders, and the Nürnberg Stove.....	Ouida
Heidi.....	Spyri

## GRADE VII.

William Tell.....	McMurry
The Story of the Romans.....	Guerber
Christmas Carol, etc.....	Dickens
Grandfather's Chair.....	Hawthorne.
Tales from Shakespeare.....	Lamb
Birds and Bees.....	Burroughs
The Courtship of Miles Standish.....	Longfellow
Hans Brinker.....	Dodge

## GRADE VIII.

Evangeline.....	Longfellow
Tales of a Wayside Inn.....	Longfellow
Snow-Bound.....	Whittier
Tales of the White Hills, etc.....	Hawthorne
The Man Without a Country.....	Hale
The Merchant of Venice.....	Shakespeare
Tom Brown's School Days.....	Hughes
The Sketch Book.....	Irving
The Perfect Tribute.....	Andrews

## GRADE IX.

Julius Caesar.....	Shakespeare
Kidnapped.....	Stevenson
The Deerslayer.....	Cooper
Autobiography.....	Franklin
The Talisman.....	Scott
Plutarch's Lives.....	
Afoot and Afloat.....	Burroughs

**SCHOOL COMMITTEE**

1910-1911

---

PROFESSOR JOSEPH H. BEALE, LL. D., *President*

\*PROFESSOR JOSEPH H. BEALE, 29 Chauncy Street  
MR. FRED A. McMENIMEN, 100 Winter Street  
J. HENRY RUSSELL, ESQ., 176 Hancock Street  
\*JAMES B. VALLELY, ESQ., 9½ Roseland Street  
MRS. FLORENCE LEE WHITMAN, 23 Everett Street

---

SANFORD B. HUBBARD, *Secretary and Agent*

---

Regular meetings of the School Committee are held on alternate Fridays, at eight o'clock P. M.

---

**SUPERINTENDENT OF SCHOOLS****OFFICE, CITY HALL**

FRANK EDSON PARLIN . . . . . 3 Forest Park

**OFFICE HOURS**

Office open: From 8 o'clock A. M. to 5 o'clock P. M., every week day except Saturday; Saturday, from 8 o'clock A. M. to 12 o'clock M.

Superintendent's hours: Regularly from 4 to 5 o'clock P. M., every school day except Wednesday. Usually from 8.30 to 9.30 o'clock A. M.

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\* Elected at large.

**SCHOOL CALENDAR**

1910.

The Winter Term: January 3 to March 24.

The Spring Term: April 4 to June 24.

The Fall Term: September 7 to December 23.

1911.

The Winter Term: January 3 to March 24.

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**SCHOOL HOLIDAYS**

Thanksgiving Day, with the preceding day and the day following; the twenty-second of February; Good Friday; the nineteenth of April; Memorial Day; the seventeenth of June; Columbus Day; the twelfth of October; and in addition to these, for the high school Commencement Day at Harvard College.

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ANNUAL REPORT

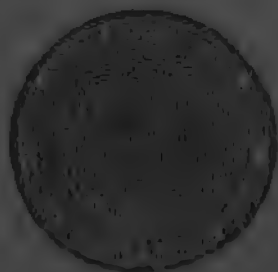
FOR THE

★ SCHOOL COMMITTEE

AND THE

SUPERINTENDENT OF SCHOOLS

1910





**City of Cambridge**  
**Massachusetts**

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**ANNUAL REPORT**  
**OF THE**  
**SCHOOL COMMITTEE**  
**AND THE**  
**SUPERINTENDENT OF SCHOOLS**

**1910**







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## SCHOOL COMMITTEE

1910-1911

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<sup>1</sup> Elected at large.

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## REPORT OF THE SCHOOL COMMITTEE

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### *To the Citizens of Cambridge:*

During the year 1910-11 the Committee met fifty-one times, besides several meetings in committee of the whole. As no meetings are held in August, this means that on the average the Committee has met oftener than once a week. A large amount of time was given to the consideration of a new draft of the rules of the Committee. Owing to the considerable time elapsed since the last revision, and the fundamental changes in the constitution of the Committee and its work, a new revision was seriously needed. The revision is now substantially complete and may be issued, it is hoped, in a short time.

### SCHOOLHOUSES

The Committee, in its last report, called attention to the radical changes needed in the old school buildings to make them safe from fire and satisfactory in lighting and ventilation. These changes were so great in some cases as substantially to amount to rebuilding, and the Committee felt that the expense should not be borne by the school funds; but, in view of the financial condition of the city, it did not seem possible to obtain an appropriation for such changes from the City Council. The Committee accordingly voted to make the most pressing changes in the most dangerous buildings out of the school funds.

In the last report of the Committee attention was called to the condition of the furnaces in the old part of the Webster School and to the fact that the plans for the new building did not provide for a heating plant for the whole building. In spite of the remonstrance of the Committee nothing was done to avoid the danger of fire. Finally, on July 8, the Committee offered to pay out of the school funds the expense of a complete heating plant, together with other changes in the old building which were deemed necessary for its use. The expense of these changes to the Committee was then estimated at \$5,500, but they finally cost about \$8,400. The building has been completed and has proved to be quite satisfactory. It has relieved the crowding of the Morse and Houghton schools and has enabled us to close the old Riverside building.

The usual repairs were made during the summer and the tinting of the schoolrooms and corridors was completed.

### SCHOOL YARDS

The adoption of a system of physical training has made it necessary to pay more attention to the size and condition of our school yards. By co-operation with the Playground Commission it has been possible to make provision for good-sized yards at most of the schools. A few are still without proper yards. The yards are, however, not in good condition; they particularly need grading and fencing. The Committee secured an estimate of the cost of grading several of the yards, but found the expense beyond its means. It is of the utmost importance that these yards be put into condition and used for the physical development of the children. It is hoped that this may be accomplished by some arrangement with the Playground Commission during the next year.

### ADMINISTRATION BUILDING

The High and Latin School now occupies two buildings seventy feet apart. The pupils have to pass frequently from one building to the other, and in winter such passage might become dangerous to health. During the past winter the Committee arranged with the Superintendent of Buildings to make a temporary passage way between the buildings by using voting booths; but this expedient was expensive and exceedingly ugly. The Committee desires a permanent connecting wing between the buildings.

The Supervisor of Drawing has for several years desired better accommodations for drawing in the high school building. This year under the new plan of studies in the High and Latin School the number of pupils who elected drawing increased enormously, and the present accommodations became absolutely inadequate. The Committee could see no way of securing better accommodations without great and useless expense, except to put a drawing-room in the upper story of the proposed connecting wing.

Each of the former schools now united in the High and Latin School has a good library which occupies a large room and is cared for by a librarian. The Committee feels that a single library, cared for by one librarian, could do the work as well. Such a library might also contain a reference library of works on education for the use of all teachers throughout the city, and might form a meeting place for

them out-of-school hours. This library, it was thought, should be placed in the connecting wing.

The offices of the Committee in the City Hall have long been inadequate. In three small rooms the executive officers of the Committee have to do their work, the superintendent, supervisors and directors meet teachers, parents and pupils, and the Committee holds its meetings. These rooms are needed for other city uses. Ample accommodations could be had in one floor of the connecting wing, and storage for school supplies could be found in the basement.

At the request of the Committee, the City Council authorized the sale of two unused school lots and appropriated the money realized from the sale (estimated at \$14,000) and \$5,000 additional, for building a connecting wing two stories high. The architects of the two high school buildings were employed to suggest a plan. Before this work had been completed, however, the need of additional room for drawing became apparent, and it was felt to be necessary to build a three story wing. In working out the artistic problem of connecting a red brick building with a yellow brick building, with different styles of roof and different alignment of sides, it was found necessary to suggest a more expensive form of construction. Plans were finally drawn which were entirely satisfactory to the Committee; but the bids for the construction of the building have proved far greater than the amount available. It is hoped that some means may be found of securing this most desirable improvement.

## EVENING USE OF SCHOOL HALLS

Many applications have been made to the Committee for the use of the school halls in the evening. The Committee would be glad to have them constantly used for educational and social purposes; but it has no power to spend the public money except as such power is given by the statutes of the Commonwealth. The money at its disposal can be spent only for the maintenance of the public schools; not for paying for heating, lighting, cleaning and policing halls for other than school purposes. It has therefore been obliged to decline to give the use of the school halls for any purpose not closely connected with the public schools. It is ready to let the halls at cost for any proper public purpose; and did in fact let its halls for rallies before the last city election. If it could obtain a small appropriation for the purpose, it would gladly use school buildings as social centers.

One use which is expressly permitted by the statutes is for evening lectures on educational subjects. By co-operation with the Dowse Institute an interesting experiment was this year tried. The Institute furnished lectures on literary and scientific subjects; the Committee furnished halls and lanterns and distributed tickets for the lectures. In this way six lectures each were given in the Wellington, Webster and Peabody schools. The audiences, at first small, grew larger as the interesting nature of the lectures became known; and the experiment was quite as successful as could have been expected. It is hoped that next year the plan may be repeated.

### PHYSICAL EDUCATION

During the year the Committee, upon the recommendation of the Superintendent, decided to introduce an adequate course in physical training in the schools, and appointed Mr. Ernst Hermann as Director of Physical Training. When Mr. Hermann came he found no apparatus for physical training in any primary or grammar school and very little in the high schools. Upon his request the Committee voted to expend \$1,450 on play implements and apparatus of various kinds. As this apparatus was distributed to thirty-four schools and was used by over 15,000 pupils, it is obviously not an extravagant expenditure. The Committee believes that such a course in physical education as has been prepared by the director, carried out in adequate school yards, will make the pupils stronger physically and mentally, and less mischievous in school for being given the chance to "let off steam" on the playground.

### DRINKING FOUNTAINS

The new law, which prohibits the use of common drinking cups, made it necessary for the Committee to provide the pupils with some other means of drinking. After a careful and painstaking investigation the drinking fountain, which seemed to the committee most practical and economical, was adopted.

### FINANCIAL CONDITION

Two years have now passed since the Committee of five took charge of the schools. At that time it found, left by the former Committee, schoolhouses in fairly good repair and a good stock of supplies. At the end of this year, the schoolhouses are in better condition, and the stock of supplies substantially the same. A



merely nominal balance was turned over to the city at the end of each of these years. The funds at the disposal of the Committee represent, therefore, substantially the expenditures during the two years.

During these years several extraordinary expenditures have been made. The equipment for manual training in the grammar schools has cost \$2,202.10; the physical training implements, \$1,448.27; the drinking fountains, \$1,050.60; and the changes in the Webster School, \$8,345.80. Some extraordinary expenditures must of course be expected every year; but it is safe to set the unusual expenditures as at least \$12,000. This amount, then, we may regard as having been saved in two years out of the money available for the schools. This is not a large margin, out of a total income of \$530,000 each year. Nevertheless, the Committee feels it absolutely necessary to raise the salaries of some of the most poorly paid teachers. To expect an educated woman to live in Cambridge, as a teacher ought to live, on \$450 or even \$600 a year is expecting the impossible. The Committee must find some way of moderately increasing the lowest salaries. They will be helped to some extent by the substantial increase in the amount available for schools next year.

### OFFER OF HARVARD UNIVERSITY TO THE CITY

On January 30th, 1911, the Corporation of Harvard University passed several votes which are of great interest to the School Committee and the public school system of the city. These votes are as follows:—

1. The Corporation agrees to give free tuition for their freshman year to all Cambridge boys from the public high schools whose parents cannot afford to pay their expenses in college.
2. Subject to the approval of the Dean of the Summer School, reduced rates are offered to Cambridge teachers in that school.
3. The University athletic fields in Cambridge are offered as playgrounds for the children of Cambridge in the summer, so far as possible.

Dean Ropes of the Summer School has agreed to a reduction for the tuition paid by teachers in the Cambridge schools for courses in the Summer School, from twenty dollars to ten dollars per course.

These offers of the University furnish great assistance to the School Committee in its work of educating the children of Cambridge.

A considerable proportion of the boys who enter the high school, and even of those who succeed in graduating from the classical department, have been unable to go to college. This offer will make it possible for every such boy to complete the freshman year at Harvard College, and as any boy of average ability who succeeds in passing through the freshman year may easily earn enough to carry him through the rest of the course, this offer means that no Cambridge boy of average ability need be without a college education if he so desires.

The accommodation given our poorly paid teachers by the provision for a reduction of the tuition fee in the Summer School should enable many of them to take advantage of the great opportunities for study afforded them by the school.

The thanks of the Committee as well as of the citizens of Cambridge generally are due to Harvard University for its generous offer.

IN SCHOOL COMMITTEE,  
Cambridge, May 15, 1911.

*Ordered*, That the report of the President of the Board be adopted as the annual report of the School Committee for 1910-1911, and that the secretary be authorized to append the names of the members of the Committee thereto.

JOSEPH H. BEALE,  
FRED A. McMENIMEN,  
J. HENRY RUSSELL,  
JAMES B. VALLELY,  
FLORENCE LEE WHITMAN,

*Members of the School Committee for 1910-1911.*

## REPORT OF THE SUPERINTENDENT

---

*To the School Committee of the City of Cambridge:*

Herewith I submit my second annual report, which is the forty-third in the series of annual reports by the Superintendent and the seventy-first of the printed reports of the School Board of Cambridge.

### THE CONDITIONS OF PROGRESS

The development and maintenance of a school system at its maximum efficiency depend chiefly upon three things—the policy of the School Committee, the availability of necessary funds and the competency of the teaching force.

► The policy of the School Board is of prime importance because it so largely controls the other two factors. If it be broad-minded, far-sighted, and devoted to the welfare of the children, the potential benefits of the funds and of the teaching force may be fully realized, but, if it be otherwise, no funds will be found adequate and no corps of teachers able to secure to the community more than meager and unsatisfactory returns. When the School Board works unitedly in the service of the whole community, when it feels its responsibility rather than its power, when it has neither friends to favor nor enemies to punish at public expense, and when it puts its best intelligence and conscience into its work, then the interests of the pupils are secure, the funds are wisely expended, and the schools are sure to improve. The spirit of the central authority will soon pervade the whole department. The policy of the Board is apt to fix the prevailing aims and standards of all the rest. If it be sound and vigorous, the current of life begins to quicken in well-ordered channels throughout the system; if firm and steady, waste and confusion give way to profitable and systematic work; if just and fair, merit and efficient service become confident of due recognition. For the schools under its charge, the Board defines the meaning of public education, determines what opportunities shall be offered, and where the emphasis shall be placed. It decides whether the accommodations shall be adequate and the equipment appropriate, whether the courses shall be adapted to the demands of practical life and the teachers qualified to meet the needs of the children. The welfare of thousands is in its hands

and depends upon the wisdom and integrity with which it discharges its great responsibility.

But much depends upon the amount of money available for school purposes. With limited funds expenses must also be limited, and soon a choice between things desirable becomes necessary. Bills cannot be paid by voting to contract them. Obligations should not be assumed until the money required to meet them is in sight. The question of increasing salaries, of forming new classes, of adding new departments, or of doing anything else, is usually not one of desirability but of finance. The constant problem is to select the best of many good things, and to reduce expenses for less important matters in order to increase them for more important ones. Nearly every proposal for a "new departure" in the schools must be referred to the budget, because, unfortunately, it often vetoes perfectly valid demands for better buildings, more healthy conditions, stronger teachers and for broader and more thorough training, and its veto stands. The School Board may fully appreciate the needs and be even anxious to meet them, and yet be entirely unable to do so from lack of means.

The third important factor involved in the development of an efficient school system is the ability of the teaching force. If there were enough first-class teachers to be had and there were ample funds to pay them, this factor would require much less consideration. But these conditions are contrary to the facts. A school system, like any other organism, should take in new matter only as fast as it can digest and assimilate it; otherwise, it will become surfeited and disordered, thus not only losing all benefit but actually becoming less efficient. The organization must be adapted and the teachers prepared for the required work. Then the changes must not come so fast as to confuse and discourage either teachers or pupils. The conditions must be right before even good things are desirable. Sometimes intelligent and well-meaning persons, who know little of the practical side of the work, urge upon the schools things excellent in themselves, but which are useless or harmful under unfavorable conditions. It is much easier to evolve a satisfactory theory of education than to work it out satisfactorily in practice. It is comparatively easy to decide upon a desirable product, but it is much more difficult to secure the chosen results with all sorts of machines and all kinds of raw materials. Occasionally the schools have to be protected from their friends.

The attitude of the teachers toward improvement is a very important matter, and the success or failure of most educational plans

is largely due to them. Teachers, like other members of the community, may be divided into three classes—the conservative, the progressive and the radical. The conservatives have undue regard for age and long practice. "It always has been so" is their chief argument. They rarely see any need of changes and, if innovations are suggested, predict that disastrous results must necessarily follow. When changes come, they usually assume a critical, if not a hostile, attitude toward them. This static condition of mind indicates either that growth has ceased and stagnation begun, or that the teacher has some personal interest in the existing arrangement. Generally, these teachers are among the least competent and the least energetic. They are apt to complain of unfair assignments of duty or of overwork. A close examination of their conduct and remarks tends to justify the suspicion that they judge the merits of all propositions from a personal rather than from a professional standpoint—by the probable effect upon themselves rather than by the effect upon their pupils and upon the system as a whole. They like old ruts and a slow pace. Apparently they think more of their personal ease and comfort than of the educational welfare of the children. They lack life, magnetism and imagination, and, as might be expected, are least successful in awakening, inspiring and controlling the young. They prefer to reduce the methods of education to a mechanical process, the results of which can be measured by percentages. Old habits have much to do with their attitude, but temperament, lack of professional spirit and of real interest in teaching have much more to do with it. It is not a question of age, for some of the most progressive are among the old teachers, while some of the most discouraging cases are found among the younger ones. Too many seem to have taken up teaching because they thought it easy and convenient rather than because they liked it or were naturally adapted to it. Fortunately, there are comparatively few such conservatives as I have described, in the schools of Cambridge.

A large per cent of our teachers are intellectually and professionally progressive. They are alive and their heart is in their work. They welcome any change which gives reasonable promise of improvement and accept cheerfully the duties assigned them. They are thoroughly interested in their pupils and are willing to make large personal sacrifice for their good. Growing themselves, they appreciate the constant need of adjusting the work of the schools to the ever-changing demands of the world outside. They allow no habits to hamper them and measure both old methods and new by

the same standard—that of merit as proved by results. They are willing to prove all things and to hold fast to that which is good. The professional spirit of this large body of teachers deserves high commendation. Their constant study for self-improvement, their cheerful and inspiring influence and their loyal cooperation are a sure guaranty of satisfactory effort on their part and of satisfactory response on the part of their pupils.

The teachers of the third class, although few in number, are, nevertheless, represented in every corps. They are like the old Athenians who spent their time in nothing else, but either to tell or to hear some new thing. The radicals are as intolerant of present conditions as the conservatives are of changes. They welcome enthusiastically but thoughtlessly every novelty, and the more spectacular it is and the farther removed from the usual practice the more strongly it appeals to them. The fact is, they are emotional and superficial, being guided more by feeling than by thought, eager to try new experiments but apathetic in the routine of regular work. They teach the new lesson much better than they drill upon the old. Left to themselves the course of study would soon be reduced to an ever-changing series of fads and fancies. They fail to discriminate in educational values and to grasp fundamental principles, and, therefore, often attribute their poor results to causes outside of themselves—poor text-books, stupid children, defective courses, or lack of supervision. Generally they have the redeeming qualities of health, energy and cheerfulness, but these need to be combined with knowledge, judgment and staying power to yield their full value in the schoolroom. Under constant guidance these teachers may do good work, but not otherwise.

There is another factor, which often enters largely, although indirectly, into the problem of developing a school system, and that is public opinion. Sooner or later, however, the Board will reflect the public opinion of the community which it serves. No school policy can long continue either to lag behind or to advance beyond the approval of the majority of the people. But public opinion will almost invariably support a really progressive policy or any reasonable experiment made in the interest of the children, as soon as it is fully informed in regard to them. There is no doubt that the people want good schools which are up-to-date, businesslike and efficient, and which are administered with economy and without favoritism.

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## In Memoriam

### JOHN WESLEY FREESE

John Wesley Freese was born in Eaton, now Madison, N. H., June 26, 1840. He attended the East Maine Conference Seminary for five terms, finished his preparation for college under the tuition of Rev. Wellington Cross of Bangor, Maine, entered Tufts College in the spring of 1865 and graduated with the class of 1868. For twenty years he taught in the schools of Lagrange, Stockton and Orland, Maine, and of Lynn, Mass. At Lynn he served eleven years, first as master of the Parrott School, then of the Ingalls School. His last position before coming to Cambridge was as governor of the Friends School at Providence. In 1881 he came to this city as acting master of the old Washington School which stood on Brattle Street. The next year he went to South Boston, but, on October 1, 1883, he returned, having been appointed submaster of the Washington School. In September, 1886, he was made master of that school; in June, 1905, was transferred to the mastership of the Houghton School, and in July, 1910, was made Master Emeritus of that school after the first of September.

On retiring from active service, he moved to his farm in Raynham, Mass., where he died, Wednesday, September 7, 1910.

Mr. Freese's interests were never confined to the schoolroom. He enjoyed nature in all her forms, but was especially fond of the birds and the flowers. He was much interested in local history and wrote Historic Houses and Spots in Cambridge and Nearby Towns. He also compiled a genealogy of the Freese family in New England.

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## SCHOOL SAVINGS BANK

By law the public schools of this State are required to instruct their pupils in thrift. In practical life thrift applies to the acquisition, saving, investing and expenditure of money, or, reduced to its lowest terms, to earning and expending money. In this country most industrious persons are able to earn a comfortable living, and would be able to provide for old age if they were provident and wise in their expenses. But, unfortunately, many never learn how to save, and few are willing to live within their means. During their youth and the years of plenty they acquire expensive habits living fully up to their income, if not beyond it. If, then, the school can help the children not only to form habits of industry but of self-denial and providence for future needs and benefits, it will teach them a most valuable lesson and one greatly needed. But this lesson cannot be taught effectively through sage advice and academic instruction alone. The teaching must in some way be transmuted into self-denying and provident habits on the part of the pupil, into the habit of foregoing a present for a future good and of saving as well as of earning.

Various methods of teaching thrift are in use in the public schools of the country, but the following plan, which has been unanimously approved by the School Committee, seems to possess unusual merits because it is safe, convenient, educative and according to business practice:—

Deposits of one cent or more are received every Monday at the morning session by the teacher of each class, and the amount of each deposit is entered upon the depositor's school pass-book, which he retains. The money collected by the several teachers, together with the deposit slips filled out by the pupil, and giving the date, amount deposited and name of the depositor, are promptly delivered to the master of the school, who, after making the necessary ledger entries, deposits the money on the same day in the neighboring savings bank, receiving from the bank a pass-book in the name of the school.

When a pupil has deposited the necessary sum to draw interest, the savings bank issues in his name a pass-book, to which all his deposits are transferred from the general pass-book of the school. After that, his deposits during the current quarter are transferred to his savings bank pass-book just before the beginning of the next quarter.

Money may be withdrawn on any Monday, but all withdrawals



must be made through the master of the school, and at the personal request of the parent or guardian of the pupil who withdraws it.

When a depositor graduates or leaves school, he is given either his savings bank-book or the money due him.

At regular periods, the interest received upon the general fund or school pass-book is divided pro rata among the individual depositors of the school, according to the amounts on deposit.

This plan has been used in the public schools of several cities and towns with entire satisfaction to the school authorities and with general popular approval. It will be inaugurated in some of our schools as soon as the necessary equipment is ready.

### GRADATION AND PROMOTION

Last year a new plan of gradation and promotion was outlined. The plan as worked out and put into operation during the past year is as follows:—

The accompanying figure will aid in describing and in understanding the scheme. The basal course marked A, covers a period of eight years, the work of each year except the last being divided into three grades, or twenty-three grades in all, each grade covering the work of about three months. There is a parallel or supplementary course, marked B, covering the same work in six years. In it there are seventeen grades, the work assigned to each grade being one-third more than to each grade of the basal course. That is, pupils in the supplementary course are expected to do *nearly* as much in six months as those in the basal course do in nine; or, stated from the other side, pupils in the basal course are required to do only two-thirds as much work in a given time as those in the supplementary course. In each course there are three promotions a year, except the last. This modification in the last year is due to the fact that pupils are admitted to the high schools only twice a year, and that the last five months in the grammar schools are devoted

A			B		
8	23		17		
	22			6	
	21			16	
7	20			15	
	19			14	5
	18			13	
6	17			12	
	16			11	4
	15			10	
5	14			9	
	13			8	3
	12			7	
4	11			6	
	10			5	2
	9			4	
3	8			3	
	7			2	1
	6			1	
2	5				
	4				
	3				
1	2				
	1				

largely to a thorough review of the essentials of the elementary school subjects.

According to this plan, if a pupil fails to do the work of his grade satisfactorily, he is required to repeat for only three months, at the end of which time he has another chance for promotion. If he is in the supplementary course and fails to keep up, he may be transferred to the basal course with a maximum loss of only two months. Once each year the transfer may be made with the loss of only one month, and once each year without any loss of time whatever. Pupils in the basal course who are able to do more work than is required of them there, may be transferred to the supplementary course at any time by repeating at most two months' work. Beginning with the third grade, the transfer may be made at the end of every fourth grade by reviewing the work of one month, and, at the end of every fourth grade, the transfer can be made without any review. Thus it is possible by passing from one course to the other to vary the rate of progress, to meet a great variety of needs and to do it without omitting any subject and without loss of time. The shortness of the grades and the frequency of promotions greatly improve attendance and stimulate effort. As one principal has put it, "It is an effective scheme for the elimination of the lazy." The period of review for those who fail to be promoted is not long enough to dishearten the pupils, or drive them out of school. In three months there is always another chance. This seems to them and to their parents quite different from a year, and so they go to work with new determination and increased effort. Moreover, the reviews always come at the end of short periods, before the pupils have lost the impressions received from their first study of the subjects. The second impression is made before the first is obliterated, either by the length of time or by a change of subject matter.

The feature of this plan which is likely to impress many unfavorably at first, is the assignment of more than one grade to a room, except in large buildings. But further consideration will reveal some compensating advantages. Generally, teachers occupy too much of the time and attention of their pupils, giving the children too little time for study and the preparation of their work. There is so much teaching that the children do not learn how to study, so much explanation and help that they do not acquire independence and the power to master difficulties alone. After the teaching, assistance should be given only in individual cases, not to the whole class. If the whole class needs it, either the teaching has been in-

efficient or the work is too hard. There is also too much lesson-hearing or recitation and too little lesson-preparing. Usually, more time is given to recitation than to preparation, a practice that can hardly be defended by any sound reasoning. Pupils should be taught how to prepare their lessons—how to use books, where to find the information desired, how to pick out the essential matter and how to arrange it in orderly form. When there are two or more grades in a room, the upper grades learn much in review from the lower ones, while the lower grades in turn learn much from those in advance.

Under this plan children are admitted to the first grade at any time during the year, provided they are at least six years of age, and there is an outlet into the high school twice a year for those who have completed the course. It closes up the break between the grammar and high schools, and allows pupils to pass uninterruptedly from one to the other as soon as prepared, just as they have passed from grade to grade in the elementary schools.

The practical application of the plan has already brought out some interesting facts. First, that many children are able to advance in their school work much faster than is generally believed, and this, too, without any overpressure whatever. In fact, these children are much more interested and happy when allowed to work at their natural speed and capacity. They chafe and become discontented when held back to the pace of their slower classmates. Second, the awakening and stimulating effect upon the naturally slow and indifferent child has been very apparent. Third, by sending the prepared pupils of the upper class to the high school in February, the teacher of this class has about six weeks for careful individual work with the remainder and slower portion of the class before other pupils are promoted in March. Fourth, by fixing the entrance age at six years and by admitting pupils on any day of the school year, great waste, to say nothing of the injury to the children in trying to get immature pupils to do work which they cannot understand and for which they are entirely unprepared, is avoided, and a very helpful nucleus, accustomed to school work and unconsciously serving as guides to the newcomers, is always present in each class. The teacher is never overwhelmed with forty or fifty beginners, untamed and totally ignorant of what is expected of them. Here, again, much time and energy are saved.

## KINDERGARTENS

It may well be questioned whether the present organization and arrangement of the kindergartens is either best for the children or makes the best use of the kindergartner's time. In raising the question no criticism of the kindergartners is intended, for their work has been largely laid out for them and has not been of their own choosing.

The afternoons have, under the rules of the Board, been assigned to the kindergartners for visiting the homes of the district. This is far too much time to be devoted to that purpose. It seems better to have a morning and an afternoon class and in many cases to reduce the number of children present at one time. This would provide for more children than can now be accommodated. So far as the kindergartners are concerned, there is no reason why they cannot take charge of one group of children in the morning and another in the afternoon. Their work is neither more difficult nor more wearing than that of the grade teachers.

The work of the kindergarten should also be modified so that most of it can be done out of doors. It would take a little time and some careful thought to develop the work of the out-of-door kindergarten, but it can be done and done satisfactorily.

The children are kept too much in the house, sitting and doing things useless, if not harmful, to them. In pleasant weather, at least, children from four to six years of age should spend most of the day in the open air and sunshine, exercising their senses and muscles in a perfectly normal way. To see the works of nature and the ways of men as they really are, and to play the natural, real plays of children, are what these little people most need.

Your attention is called to the report of the Supervisor of Primary Schools and Kindergartens, which follows:—

"During the past year much that is new has entered the school program; and the untried has been attempted with an unfailing faith and cheerfulness on the part of the teachers that deserved and insured success.

"One of the good effects of the new grading in the primary schools was experienced when the first promotion permitted third year pupils, who were not ready to be sent to the grammar schools last June, to make up their deficiencies and enter in December. These children were glad to avail themselves of the opportunity and were encouraged to do so by their parents. They worked eagerly, and the

attendance was excellent. Out of one thousand seven hundred sixteen children in the third year grades, two hundred twenty-two were received into the grammar schools in December. Many of these children gained two terms in the work of the third year.

"The next group, encouraged by the success of the few, worked to be prepared for the spring promotion. Of these, four hundred forty-two entered the grammar schools in March,—thus gaining one-third of a school year. Of the class left for promotion next June, several are children who came from the second year grades last December.

"The frequent promotions appeal strongly to the imaginations of the children. The impression made is that advancement depends upon personal effort; and there is an added sense of responsibility that results in good attendance and faithful work.

"With the exception of a very few special cases, all the children connected with the primary schools since last September, have been advanced one grade, the majority of them two grades, and a number have already completed a year's work. The gradual decrease in numbers in the primary classes will be a great advantage this coming term.

"There has been a more systematic teaching of phonics and the children are making a more practical use of them; consequently the reading has gained in fluency the past year, and, with the help of the new books, it has broadened in interest and information. The classes are stronger in oral language; the spelling, as shown by recent written tests, is much improved.

"All the grades are showing the greatest interest in the lessons in history and local geography. Excursions made by a few classes to nearby places were much enjoyed and showed encouraging results.

"The one session plan in the first year grades has proved an unqualified success. The little children were promoted as well as ever last June, and this year will show even better results. All that is needed to perfect the plan is playgrounds for the young children when not in class and for all the grades at recess.

"There has been little change in the daily program of work in the kindergartens this year; but the time given to gifts and occupations has been shortened, and the number of periods for physical exercise has been increased. Besides the games, there is one out-of-door period for each session and at least one excursion each week. Folk dances have been introduced into all the kindergartens, and are much enjoyed by the children. It has become necessary to simplify the

Froebel games as well as the work at the tables because of the shortened periods; but the children have accomplished as much as usual, for, being several months older, they are more self-helpful than before. Both teachers and children are looking forward hopefully to the larger playground and the little garden plot.

"The mothers show a keen interest in the monthly meetings, especially such as give them helpful information. Forty of the busy mothers assembled in one of our smaller kindergartens recently to listen to the Director of the Cambridge Trade School for Girls.

"The teachers are devoted to the welfare of the kindergarten community, and foster the friendly relations between the home and the school by frequent visits to their pupils."

### THE HIGH AND LATIN SCHOOL

On the first day of September the English High School and the Latin School were united under the above name and have since, officially and in every other respect, constituted but one school. The anticipated benefits of the union are being realized, and no disadvantages have so far appeared. It would be difficult to find a school better organized or more efficiently managed. The spirit and industry of the school are good, the relations of teachers and pupils are cordial, and the whole institution has a pleasant and businesslike appearance. Although one hundred eighty-five new pupils entered in February, there was no confusion nor interruption of work. The newcomers soon found their places, began to feel at home, and became interested and happy in their new duties. This was the first class to be admitted at the middle of the year under the new plan of promotion. The plan has worked satisfactorily so far as the school is concerned and has called forth strong approval from many parents.

In order for the school to meet fully the needs of the community, a thorough trade course for girls should be offered. From a careful study of the local industries open to women, it seems that a four-years course in dressmaking and millinery is best, as many of the local industries call for unskilled labor only. This course should be on a strictly industrial basis as to hours, subjects and methods of instruction, and should be open to certain girls fourteen years of age or more who have not finished the grammar school course as well as to those who have graduated. About half of the time should be given to shop work, and the academic subjects should be applied directly to the shop experience and to the industrial demands. The work of

each year should be a unit in itself, although an appropriate sequence to what has preceded, so that a girl leaving at the end of any year will have completed some parts of the course and will be prepared to enter a shop and do something well.

For further items of interest relative to this school I refer you to the report of the Head Master whose report follows:—

"I herewith submit a report for the past six months in the High and Latin School. My arrival in Cambridge is so recent that this report will concern itself with certain general phases of school work together with some changes that have been introduced.

"The registration on the first of February was 1,248. The class which entered the sixth of February numbered 185, making a total registration for the year of 1,433. This total is distributed by courses as follows: College Preparatory 527, Scientific 21, General 124, Normal 151, Commercial 549, Domestic Science 61. In each of the six courses the larger part of the work is prescribed, experience having shown that a free elective system is bad for young students. Indeed, colleges are beginning to insist upon election by groups. Few students of high school age can choose their studies wisely. They do, however, know what general line of work chiefly interests them. The prescribed studies in the course selected secure a continuity of effort according to a carefully worked out plan, while the electives make that course somewhat elastic. The boy, for instance, who is fitting himself for a college of liberal arts may elect shorthand and typewriting, or drawing, or, in fact, any study which his time and ability will permit. The college preparatory course is arranged on a four-year basis, as four years seem sufficient for the student of average ability and good health. Occasionally a longer period is demanded because of immaturity, ill health, or some other special reason. The individual need should govern the choice of a course. A student should accomplish each year what he is capable of accomplishing, else his whole moral fibre will suffer. A prolonged period of preparation is too expensive, if it means the pupil has not worked up to his capacity during the time of that preparation. It is of the greatest importance that he should develop his maximum efficiency and acquire the habit of hard work. The school is the student's place of business, its work his prime concern. His out-of-school hours should be devoted either to study, or rest and recreation; and all interested in his welfare should help him carry out this plan. Some, to be sure, can take little time for recreation because compelled to support themselves partly if they go to school. These, however, find their reward in acquiring a strength

which only such struggles can develop. If the pupil could learn to make each hour count, either in work or in renewing his strength for work, he would accomplish much more and appreciate the value of time. The demand on all sides is for efficiency, whether in professional life, in the trades, or in business. Our schools too often fail to develop the maximum of efficiency, too often their graduates have not learned to do anything well, have not learned to work rapidly, have never come to realize at all the joy of work and accomplishment. The school should teach the lessons of real life, in some degree at least, or its pupils will go forth poorly prepared for the struggle before them. The whole atmosphere of the school, then, must be one of earnest work and good fellowship. This is as necessary, if the school is to be a place of interested and interesting life, as a suitable soil is for the proper growth of the plant. While the teachers should be scholarly and efficient instructors, it is even more important that they be sympathetic, enthusiastic co-workers with their pupils.

"More students elect the commercial than any other course and the electives of the pupils of the freshman class show a decided increase in this direction. They choose the commercial line of work because they feel it touches actual life more closely than does any other. Many boys and girls who now drop out of school several years earlier than necessary would continue if they thought it paid. To large numbers of our young people, school work must aim at a definite job at graduation in order to seem worthy of the time it demands. Recently, educators are coming to recognize this fact and to realize that the schools are not closely enough in touch with modern conditions, either socially or industrially. The liberal arts high school, such as the High and Latin School, has a distinct place in our educational system. The greater part of its work must be cultural, but there are certain lines in which the vocational may be combined with the cultural to the great advantage of all concerned. The commercial course should furnish the combination in a way that will give a fairly broad education together with an efficient commercial training. It should never attempt to compete with a commercial college by devoting itself to commercial subjects alone. It should, however, furnish a well-graded course which shall result in efficiency for the student who is faithful and capable. Because this course seems more practical than others, many have chosen it who are utterly unfit for commercial work. This overloading is bad for all concerned, but can be relieved by developing other fields of vocational endeavor. In the High and Latin School, the department of drawing offers great



possibilities. A graduate from the commercial course who has done his work well can be reasonably sure of immediate employment. The relation existing between the commercial work of the school and the local business community should be a close one. The employers of the graduates of the school could aid much by reporting back their criticisms of the product sent them, whether they be good or bad. This school will always welcome any such criticism.

"The admission of pupils to the high school twice a year, together with the promotion twice a year throughout the school, which must eventually follow, will furnish a much-needed elasticity. In any school, large or small, where promotions are made but once a year, the individual student is very often sacrificed. Anything which tends to eliminate such a condition is desirable. Many first year pupils fail in one or more subjects for the first half year. This may be due to a number of causes, but can very often be traced to the difficulty the pupil finds in adjusting himself to new conditions. It may not spell inability at all, but it does bring discouragement at the very beginning of a course, and often such discouragement that the pupil leaves school before his first year is ended. How does the admitting of classes twice a year relieve the situation? To be concrete, a boy entering the High and Latin School last September has failed badly for the first half year in his Latin. He has fallen so far below that he is a dead weight in the class. The teacher cannot entirely neglect him, and yet, in justice to the others, she can give him only a small fraction of the time his condition demands. He has become completely discouraged, or if not discouraged, indifferent, which is worse, and all his other work is seriously affected. With yearly promotions he must continue in that class or drop the subject entirely; if the latter, he will not have enough to do because no new classes are being formed which he may enter. This year such a boy could get a fresh start in his Latin with the class that entered in February. Mistakes of the first half year are very fresh in his mind, and, if he is capable, he may readily overtake his class in time to graduate with it. The opportunity to begin again is offered every six months, rather than once a year. The system seems pedagogically sound, and its success is largely a problem of administration. This problem has been well worked out in other parts of the country and undoubtedly will be in New England.

"High school students are at an age when they demand social organizations of some sort. Many educators have failed to recognize this characteristic as peculiar to the normal adolescent. While

they endeavored to crush those organizations which are harmful in influence, they did nothing to encourage the growth of worthy substitutes. A large part of the difficulty with school fraternities could have been avoided if the students had been offered a more legitimate outlet for this perfectly natural social desire. Encouraging the good discourages the bad, but mere prohibition of the bad will not develop the good. It is axiomatic that any club or society whose influence aids the formation of cliques, the engendering of exclusiveness and a feeling of social superiority has no place in a public school. No organization should be deemed worthy of the school name, if it recognizes anything other than real merit. Organizations whose purpose is to make school life pleasanter and richer can help the school much in every way. When membership in them stands for actual accomplishment and proclaims the member as one of the strong students in school, the whole tone of that school must be elevated. In the various clubs and societies many a student will find himself and come to know what he wishes to do in the world. Language, history, science, debating, athletics, all offer a large field for organization. These organizations must be carefully directed and each student's activities limited so that they shall supplement his other school work, rather than distract attention from it.

"The proper administration of school athletics is one of our difficult problems. The question has generally been handled from the viewpoint of interscholastic contests. Such treatment has magnified too much the importance of the school team as a team. This condition has been chiefly due to the fact that people have failed to realize the importance of a rational system of physical education, a system which shall take the student when he begins his school life and go with him until he has completed it. When this physical side of education is given the attention it deserves, any athletic team representing the school will be the finest product developed by the department of physical education. In the secondary schools, especially, the teams should have expert direction in order that they may play the strenuous games of that age with safety and profit. No greater opportunity is offered for teaching certain ethical lessons than that presented by athletics. Then the boy learns in a tangible way that he must keep his body strong and clean if he would secure its best development, that he must subordinate himself for the sake of the team in many a game; that he must carry victory with modesty, and take defeat without complaining, if he would be a real sportsman. The constantly increasing expense connected with athletics is nulli-

fying much of the good in them. It has tended to put athletics more and more upon a commercial basis, and, to that degree, robbed them of one of their chief reasons for existence. If the player thinks that he must have some material reward after he has worked through a season, he loses the genuine amateur spirit. Such an influence must necessarily weaken the growth of a healthy school spirit and warp the whole notion of loyalty. Games are no better played and the enjoyment of them no keener than in former days when the player was only too glad to have the privilege of buying his own equipment and felt that the honor of representing his school was sufficient reward for anyone. Boys to-day are as honorable and as eager to do the right thing as boys of any former day, but this custom of spending so much money has developed in them a feeling of which they themselves are hardly conscious. In a properly arranged system of physical education, the city will provide the necessary direction in the way of teachers and coaches and the necessary equipment in the way of gymnasium and athletic fields. When this is done, not only will our school teams represent the finest product of the system, but the greater part of the present demand for money will be avoided. The far-reaching plans in physical education upon which Cambridge has recently entered promise much in this direction.

"In closing this report, I wish to make mention of the loyal spirit of the teachers, of the cordial reception by the students and to thank the superintendent for his support."

### THE RINDGE MANUAL TRAINING SCHOOL

This school should have a definite place on the school system, and its functions should be entirely distinct from those of the High and Latin School. One should not duplicate the courses of the other, and, although there may be some duplication of subjects such as science, mathematics, history, English and German, those subjects should not have the same content in the two schools—they should differ widely in matter and in emphasis. It does not follow, because each school is confined to a particular field of educational work, that a student is to be limited to the courses of one or the other. On the contrary he may have open to him any course or any subject offered in either school. A boy in the Rindge desiring to take a subject in the High and Latin School may do so by making the necessary arrangements with the head masters of the schools. Thus all the advantages of both schools are open to the students of both schools.

The Rindge is a secondary school for boys, and its aim is to give them such training in the mechanic arts and closely allied subjects as will give them favorable entrance to various industries or will fit them for advanced courses in higher technical institutions. All its courses centre about the shop and all its subjects are applied to the shop or closely related to the industrial world.

Several important changes have been made in this school during the last year. The commercial course has been discontinued. The course in wood-working will be more advanced since elementary training in this subject has been introduced into the grammar grades. A trade course in printing will be offered next year. It will be a four-years course introducing trade conditions and trade methods. About half of the time will be given to shop practice and the academic subjects will be closely applied to the shop work and to the printing industry. Under certain conditions, boys, who are fourteen years of age or over, will be admitted to this course even if they have not graduated from the grammar school.

The organization of a school of this kind is a very important factor in its efficiency, because there are so many places where loss of time and waste of material may creep in. While much freedom must necessarily be allowed, good order, industry and a creditable standard of work should be required of all. There has been steady improvement in these respects during the last two years.

The report of the Head Master of the school follows:—

"The following table shows the total registration of the Rindge Manual Training School for each school year since 1906-1907:—

1906-1907 .....	475
1907-1908 .....	549
1908-1909 .....	603
1909-1910 .....	623
1910-1911 .....	706

"The figures for 1910-11 are made up to February 6, and include six hundred twenty-one who were registered up to February 6 and the new class of eighty-five members who entered upon that date. These figures indicate a steady, substantial growth which has taken place in spite of a continual increase in the quality and amount of work required of the students. The growth of a school of this type in a community like Cambridge, where the mechanical industries do not predominate, and where the academic ideal has always been maintained by the presence of the University, is somewhat remarkable. This growth has, naturally, necessitated increase in facilities,

particularly in the shops, where the number of pupils is limited by the amount of equipment. During the past year one new shop has become available in the basement of the machine shop wing of the administration building. In this shop a course in speed lathe work and iron-fitting is given to members of the junior class. This makes available five shops, each capable of accommodating thirty pupils.

"Another incident of the growth of the past five years has been the development of the free-hand drawing department. During the past year this work has been provided with suitable quarters on the second floor of the administration building, by changing the first year wood-working shop to the basement of the pattern-shop wing. In this way a large, well-lighted room was obtained which was originally intended for drawing purposes. A few years ago only mechanical drawing was taught in the school. Then, as an experiment, one of the teachers of mechanical drawing was allowed to teach some free-hand drawing. The experiment proved so successful that one-half of all the time devoted to drawing was assigned to free-hand work. Courses in design are being developed which are proving effective in improving the general appearance of the articles produced in the shops. In addition, they are opening up the great field of commercial art as another practical application of free-hand drawing. The large quarters provided this year have also made possible the teaching of wood-carving and clay-modelling to the boys possessing sufficient artistic ability to profit by such instruction.

"The buildings occupied by the school are for the most part in excellent physical condition. All schoolrooms have been whitened and tinted within two years, and the buildings are generally in good repair. The most important omission in the schoolrooms is the absence of artificial lighting in the rooms of the Washington building. On certain days during the winter these rooms are so dark that it is impossible to distinguish writing on the blackboards from many parts of the rooms. A good deal has been done during the past year in making the rooms more attractive. A considerable sum of money has been received from the Parents' Association, the graduating class of 1910, the Cantabrigia Club and other sources, with which appropriate pictures have been purchased for many of the rooms. Good friends of the school have also made generous donations. Notable among these latter is an heroic figure of 'Victory' presented by Miss Annie L. Montague and Mr. Charles H. Montague, in memory of their father, the Honorable Samuel L. Montague, who was for many

years chairman of the supervising committee which managed the school for Mr. Rindge.

"In all departments of education there is felt a demand for the readjustment of school work to the needs of the pupil. Not only is this found in the purely vocational work which the schools are beginning to undertake, but it exists no less in English, science, mathematics and other academic branches. It is no longer possible to be satisfied with covering each year a stated number of pages of a given text-book. In English, for example, it is necessary that a definite plan be developed whereby not only satisfactory results in written work may be obtained, but that a taste for good literature may be created. New methods must be devised in order that work in composition may be brought into intimate and vital touch with those subjects which a boy naturally understands and enjoys because he is a boy. Modern writers must be drawn upon to furnish vivid, entertaining and elevating material for reading. Again, in science, we are no longer satisfied to teach only the "properties of matter" to boys living in an age of automobiles, electric motors and flying machines. Shops, power stations and chemical works must be visited that the local industries may be understood and appreciated. Mathematics must be made more and more a means to an end rather than an end in itself. Modern languages can no longer be treated as dry collections of rules, but as the live tongues of living people. In much the same way the work of the shops is drawing closer and closer to the kind and the spirit of work done in real shops. We are no longer contented to make laborious 'exercises' as mere practice for some future usefulness. The exercise must take its place in a finished article of worth and beauty. In a word, everything must be done in a way that gives it usefulness now, in our own day and generation.

"There is probably no one factor in the work of a boys' school which so strongly affects the spirit of the school as its organized athletics. At present, they offer the only form of physical training available for the boys. They are supported entirely by money received by admission to the annual football games played with Somerville on Thanksgiving Day. All bills for supplies, coaching, travelling, etc., are met in this way. If the athletic teams are to continue, and, until something better can be found to take their place, it is desirable that they should continue, proper dressing rooms and baths should be provided for them in a part of the building which can be easily shut off from the rest of the school plant. The present quarters are totally inadequate and even unsanitary. A room in the

basement of the Washington building, originally intended for a girls' toilet room, and now unused, could with a little expense be equipped with a hose shower bath and lockers, to make a satisfactory athletic room. In view of the cheerful acquiescence on the part of the boys to rather stringent scholarship and deportment requirements for eligibility to school teams, and complete faculty supervision of all athletic matters, it would seem desirable that recognition be accorded to this rather limited extent of furnishing a decent place in which dressing and bathing may be possible."

### THE WELLINGTON TRAINING SCHOOL

There has been great improvement both in the spirit and in the efficiency of this school during the last year. The average ability of the present class is unusually high.

It is quite evident, from observations in this school and in primary schools generally, that, for any position except that of kindergartner, a two-years course in a kindergarten training school is not as good a preparation as a course in a good normal school. Usually the kindergarten-trained teachers are very weak in their knowledge of the subjects taught in the elementary schools, because they have not reviewed these subjects since leaving the grammar schools. In the normal schools, the students not only thoroughly review these subjects but learn the methods of teaching them. Therefore, only as many kindergarten-trained teachers should be received into this school as are likely to be needed in the kindergartens of the city.

Another qualification, which all candidates for this school should present, is good health. Teaching is too severe a strain upon nerves and vitality to be undertaken by frail and anæmic persons. Moreover, the health of the teacher has a very important relation to the progress, conduct and character of the pupils. Children need the wholesome and inspiring influence of the energy, cheerfulness and healthy appearance of their teacher as well as her instruction, sound judgment and steady control. The schoolroom is no place for an invalid.

The following is the report of the Master of the School:—

"This school was opened in September, 1884, contains all the grades below the high school, including a kindergarten, and differs from the other elementary schools in this respect—all the grades below the eighth year are taught by young teachers. Their work, however, is done under the immediate supervision of a master and

two assistants, who are held responsible for the instruction and management of the school. For several years the seventh year has been taught by a graduate of the training class.

"The object of conducting a school on this plan is to give Cambridge young women who desire to teach, and who have made a special preparation for the work, an opportunity to gain experience under favorable conditions, without prejudice to the interests of the pupils.

"Graduates of the Cambridge High and Latin School, who have also graduated from one of our State normal schools, are preferred candidates for the positions in this school. Other persons of equal preparation may be appointed.

"The required term of service is one year. Teachers are appointed to Class B and remain in this class for five months, or until their work warrants promotion to Class A. Teachers may be excused or dismissed at any time by the superintendent with the approval of the Board. No teacher is considered a graduate of this school until she has worked in Class A five months, at least, and has received the approval of the master and of the superintendent as a qualified teacher.

"The compensation during the period of service in Class B is at the rate of \$300 per annum, and in Class A it is at the rate of \$400 per annum. No pupil teacher receives a rate of salary higher than that paid to members of Class A during her connection with the school, except those selected to take the seventh year's work. Graduates selected to act as substitutes in any school are paid at the rate of \$450 per annum.

"The superintendent is authorized to employ as many substitutes and temporary teachers as may be necessary to take the places of absent teachers. These teachers are usually assigned to the Wellington School, when not otherwise employed, that there may be at this school a sufficient number of teachers to make it practicable for members of the training class to visit other schools.

"The efficiency of the school has been increased through recent changes, the most important of which is an increase in the salaries paid the pupil teachers. It is now sufficient to induce first-class candidates to apply.

"Twenty-two young women have entered the school since January, 1910. Of these, four were graduated from colleges, twelve from normal schools and six from kindergarten normal schools.

"As teachers need to be trained in the right kind of atmosphere, it would seem wise to require that the standard for the elementary



teacher should be graduation from a four-year high school course followed by not less than two years in a normal school, prepared to give the right amount and kind of cultural and professional training in proper proportions.

"The year just closed has been one of the most satisfactory years in the history of the school, due to the fact that the regular work of the various departments has been allowed to flow along naturally without interruptions; also, from the fact that added interest has come with the accomplishment of more efficient work. 'Nothing succeeds like success' is proving the rule, and our desire is, that the future of the school may be more helpful and inspiring to young teachers than ever before."

### PHYSICAL EDUCATION

The Department of Physical Education was established last June and Mr. Ernst Hermann was elected to take charge of it. To organize a new department and to inaugurate its work satisfactorily requires time, but enough has already been accomplished to convince all who have observed the work that its aims, methods and spirit are quite different from those usually found in the physical exercises of school children, and that the results must be correspondingly better. Mr. Hermann fully understands that a child is a unity and that the education of his body cannot be entirely separated from the education of his mind and moral nature. Physical education is only one phase of the general education of the child, but it is of fundamental importance since all other education is so largely conditioned upon the physical basis. The very interesting report of the Director follows:—

"In making my first report for the Department of Physical Education I beg to acknowledge, first of all, my sincere appreciation of the splendid spirit which I found among masters, teachers and pupils upon my entrance into the public schools of Cambridge. Such readiness and open-heartedness for additional work and duties by masters and teachers is, without doubt, due to the enthusiastic influence of the superintendent in preparing the field for the new department. It has made my work very easy and very pleasant.

"My main object has been first, to improve the sanitary conditions of the schoolrooms and all other parts of the buildings which influence the purity and temperature of the air, and second, to minimize the evil influences upon physical efficiency caused by sedentary

occupations. A growing child's health, or physical efficiency, depends mainly upon muscular exercise, fresh air, sunshine, and wholesome food. If health is interfered with, physical growth will at once suffer and mental efficiency will diminish. Insufficient pure air and too little muscular exercise have a harmful effect upon the physical as well as mental efficiency throughout life, but, if such conditions prevail during the periods of growth, the results are precociousness of mind and body. To keep our school buildings as free from dust as possible, to keep the rooms at all times filled with fresh air of sufficient moisture, we had to resort to open windows. I am pleased to report that pupils and teachers alike have begun to appreciate the increased mental and physical efficiency which always goes with fresh, moist air and a temperature of about 65 degrees Fahrenheit. In order that we may further improve our schoolroom air it will be necessary to get some live steam sprays into our air chambers or air shafts. If this is done, I feel that almost all of our children will form the 'fresh air habit.' One of our most important functions in hygiene education is this development of fresh air habits, especially where a number of people are brought together in one room. If sedentary work makes such practice somewhat difficult on account of needed warmth, it will be best to insist that the children put on special wraps whenever they are sitting still. This would be better than the present practice of putting on too much clothing when physically active, *i.e.*, when going out of the building.

"To make our buildings, however, clean and free from dust three things are necessary. 1. More frequent thorough cleaning. 2. Better accommodations for wiping the feet. 3. Better watering or oiling of surrounding streets and yards.

"There is a noticeable improvement since the new spray is being applied to all rooms before they are swept. A further step in the right direction will be made as soon as the school yards shall have been resurfaced and provided with hose for regular surface watering. A still greater improvement would result if all the streets surrounding the schools could be oiled.

"Of equal importance to fresh air is sufficient muscular exercise for growing children, without which normal growth is impossible. Muscle work has a much larger significance than is ordinarily supposed. In adult life, exercise is mainly needed for physical efficiency, although even at this age, the players get practice in loyalty or sportsmanship, which strengthen character and stimulate mental activity. For adults, however, all exercise generally has only a therapeutic value;

but for children, all muscular activities have the additional and very important office of modifying brain structures. The motor brain is the fundamental structure of the brain, and upon its development depends all future capacity for intellectual training. Motor activities in children are, therefore, of the highest intellectual as well as physical importance.

"For physiological reasons, it is necessary that the child be required to indulge every day in large muscular exercise. This means that he must have the opportunity to exercise, by play or otherwise, in such a manner that heart, lungs, and other vital organs receive sufficient stimulation. Proper child-hygiene demands that no child be physically or mentally overstrained. Prolonged mental or physical application is not possible in children. Sedentary work interferes specially with the efficiency of the body, because the materials needed by its various organs are not supplied in sufficient quantities and because the waste products are not removed fast enough.

"We have instituted both a morning and an afternoon recess, which are taken out of doors whenever the weather and the yard conditions are favorable. To insure activity for every child we are carrying on organized play. Without this, only the most active children would get sufficient exercise, and the teachers would not have the opportunity to study their charges while at play. Although this puts a slightly additional burden upon the teachers, it has proved to be of the greatest physical benefit both to pupils and to teachers. When once thoroughly organized, we shall have children who know how to play vigorously, can play fairly and honestly and are just and loyal. The teachers will know the children's true natures, and the children will better understand their teachers and their efforts in their behalf.

"Because the school yards have not yet been developed, so as to enable us to go into them at all times, and because it will take some time for the people to become used to the fact that rational out-of-door activities are always safe, we have put into practice schoolroom gymnastics and schoolroom plays and games. These are, however, only taken with all windows wide open. The plays and games have done much to make these exercise periods enjoyable for both pupils and teachers. Enough formal gymnastics is taken during each period to insure erect carriage and good posture of the normal child. The first object of such a period must be hygienic. This can only come through the exercise of the large groups of muscles and through plenty

of muscular work, which stimulates heart, circulation and respiration. Formal gymnastics and corrective exercises are also needed whenever children do much sitting. And since sedentary work is so common in the occupations of mankind to-day, some formal exercise will always be necessary. After doing all we can to make the children's work more natural, and therefore less harmful to physical growth, we shall still be obliged to give them some corrective exercises to prevent deformity, increased curves of the spine, forward drooping of the shoulders and a flat chest. We may prevent too much malformation by increasing all-around physical activities and by more frequent recesses, but, as long as much sitting at desks is necessary so long will it be necessary to have some formal gymnastics to prevent deformity of the body.

"Some formal gymnastics are therefore needed at all times during school life, and since man's work is generally sedentary and tends toward a forward flexion of the body, it would seem that all children should learn enough of such formal exercises to enable them by intelligent use through life to keep the body erect. But it is also necessary to develop habits of good posture and habits of rational exercise and recreation. It is for this end that the regular teachers should teach some formal exercises together with the plays and games, because these teachers are best fitted to develop good habits in their pupils. I do not believe that the regular teachers are prepared to teach any forms of exercises outside of what is ordinarily needed by the child. As soon as special exercises are needed only specialists should teach them.

"We have in our schools a large percentage of precocious children. There are many with spinal deviations, many with flat chest and many others with weak muscular development in some part of the body. These children need special attention and special exercises under intelligent direction. Our regular teachers can take care of all the ordinary physical activities and of all the work pertaining to recreation and of the moral issues involved in physical education. The many children who are not up to normal in growth of body and in co-ordinations and in skill, in courage and self-reliance, need the constant and systematic attention of specialists in physical education.

"In order that we may know accurately the physical conditions of all our children and to record the results of physical education, the physical examination already authorized by the School Board will be made in May. This investigation will cover all the physical measurements and the examination of heart, lungs, mouth, nose,

eyes and ears. All these records will be made in convenient form upon cards. The examinations to be of value should be continued annually in May. The weight of every child will be taken and recorded every month. Special notice will be sent to parents or guardians whenever the weight index shows abnormal development.

"The system of plays and games introduced into all our primary and grammar schools is already showing some results. Inter-class and inter-school contests are already being held in a number of schools. This will soon become a regular feature. Many activities of our grammar grades can be held in assembly halls, in school yards and on our playgrounds. The upper grammar boys and the high school boys are, however, greatly in need of special coaching as well as of a properly enclosed and equipped athletic field.

"Our high school athletics are too important a part of education for physical and moral efficiency to be hampered by lack of a home field with proper facilities. Nor is it in the best interest of education that these crowning physical activities of a physical educational system be left to chance instruction. In order to improve the high school sports and athletics, in order to avoid overstraining on the one hand and to secure more general participation on the other, there should be systematic practice of the larger sports and the well-known forms of athletics in the upper grammar grades. For this we need better yard facilities, better athletic fields, and the help of assistant directors.

"If we can develop along these lines, we can take care of all the physiological needs of our school children and can meet the demands which life to-day puts upon the character and citizenship. We have not yet recognized all the important needs of our young children. It must be quite clear to us that the child who enters school to-day, either the kindergarten or the first grade, is not like the child of a few generations ago. Home conditions and city environment are producing children with underdeveloped motor brains. The children of to-day, whether coming from the poorer and smaller homes or from the homes of the well-to-do, do not have the same sense stimulations and the same opportunities of reacting physically upon sense perceptions as the children formerly had, where land and natural facilities for playing existed. Neither fathers, mothers nor children do any more the same things at home and for the home. Home and environment are too small and crowded and unnatural to permit of fundamental child play. Formerly, the children, on entering school, had better developed motor brains upon which to

build intellectual education. Formerly, the very activities of children's play tended not only to fundamental motor activities but also to lay the foundation of good character, which are the power to apply oneself, or attention, and the power to control, or interest. Children to-day are apt to be hothouse flowers, physically and mentally precocious. The physical foundation for present day intellectual education is lacking. If we must take our children earlier and with a less developed motor brain, we should also bring into the early school years that which will develop a capable motor brain. Fundamental motor activities suited to the imaginative plays of early childhood employing fundamental muscles, dealing with home activities and nature work, not only would give us mentally better fitted pupils, but physically more robust and active children. For this we not only need the open air kindergartens but also half-time out-of-door sessions for first and second grades with opportunities for real garden work, real home play and many other forms of manual training."

### THE OPEN AIR SCHOOL

The Open Air School is conducted in a dwelling house, remodelled and equipped for the purpose, located on Winsor Street, near Broadway. At the time our last report was written it was expected that this school would open on April 4, 1910, at the beginning of the spring term, but delays in finishing the building postponed the opening until Wednesday, April 13.

The school will accommodate twenty-seven pupils. During the first three months pupils were received on the recommendation of the examining physician of the Anti-Tuberculosis Association. Since September, however, pupils have been admitted on the recommendation of the medical inspectors of the schools and of the visiting nurse, and they are returned to their regular classes when their physical improvement, as shown by a careful examination, is such as to lead the inspector and nurse to advise this action.

The school opened with fourteen pupils, but before the end of April the membership had increased to twenty-three. During May and June four more entered making twenty-seven in all during the spring term. But there were three withdrawals. One boy, after a stay of a few weeks and after having proved by his conduct that he was intolerable, was transferred to a private school. Two left the last of June, one returning to the Peabody, the other to graduate with his class from the Thorndike School.

The school opened in September with twenty-four of its old pupils. During October three new members were admitted, in November six others, in January three, in February two and in March two more.

Since the opening of the school, forty-three children have had the advantages it offers. Of these—six each came from the Boardman, Roberts and Wellington districts; four from the Houghton; three from the Morse; two each from the Parker, Putnam, Tarbell and Willard; and one each from the Agassiz, Fletcher, Gannett, Harvard, Kelley, Peabody, Russell, Thorndike and Webster, and from St. Paul's Parochial School. Nineteen of them were boys, and twenty-four were girls. Their ages have varied widely, there being one six years old, four seven years, five eight, nine nine, seven ten, four eleven, seven twelve, two thirteen, three fourteen, and one fifteen years old. The average age of the boys in the school was a little over ten years, and of the girls almost exactly ten years.

Since September, thirteen have left the school for the following reasons—nine, on account of their general improvement in health and weight, have been transferred to their regular classes; two have been placed in a charitable institution on account of home conditions; one, being over fourteen years of age, was kept at home to work; and one suffered so much from asthma during damp weather that she seemed to be injured rather than benefited by the open air treatment, so, after a trial of two weeks, she withdrew. The school is full, and there are several names on the waiting list.

The school being necessarily ungraded, the instruction is largely individual. In fact, every grade of the elementary schools, except the eighth year, has been represented. There were nineteen pupils from the primary grades and twenty-four from the grammar grades, and yet the progress of the pupils in their studies has been very commendable. In most cases, the improvement in scholarship has been quite as marked as the improvement in health.

The improvement in the general health of the children as indicated by complexion, appearance of the eyes, increase in strength and activity has been noticeable. The increase in weight has also indicated a gradual return to normal health. The children are weighed regularly once a month. The average increase in weight, of those who have been in the school six months, is five pounds, the individual gain varying from one to ten and a quarter pounds. The average gain of the boys was a little over four pounds, while that of the girls was a little over five and a quarter pounds in the same time. The

greatest individual gain among the boys was three and a quarter pounds in two months, and the greatest among the girls was eight pounds in three months.

With the exception of the asthmatic case mentioned above, there has apparently been no case of physical loss on the part of the pupils.

On entering the school each child is provided with a chair bag, a leg blanket, a soapstone foot warmer, a worsted toque, a pair of woolen gloves and an outside coat. With this equipment the children are comfortable even in the severest weather.

The daily program of the school is as follows:—

- 9.00. Opening exercises.
- 9.05. Music.
- 9.25. Spelling or dictation.
- 9.35. Number, reading or geography.
- 10.00. Oral language.
- 10.20. Health talks.
- 10.30. Recess for lunch of milk in summer and of cocoa in winter.
- 11.00. Arithmetic, lower grades.
- 11.25. Arithmetic, upper grades.
- 11.50. Memory gems.
- 12.00. Preparation for lunch by washing faces and hands, etc.
- 12.15. Lunch of some good nourishing soup and such food as pupils bring from home.

Rest Period.

- 1.00. Reading for all classes.
- 2.00. Dismissal.

During the spring term the pupils spent the time from two to three o'clock at work in their school gardens or at play.

The most unfavorable conditions at this school have been due to the inadequate drainage and unsatisfactory grading of the grounds. The drainage should be such as to keep the basement of the building dry at all times, and the grading of the grounds should be such as to keep them in suitable condition for play, except in stormy weather.

The school is strongly approved by the visiting nurse, the director of physical education and by the medical inspector of that district.

The per capita cost of the running expenses of the school—instruction, fuel, care and supplies, including food supplies—was \$42.72, reckoned upon a membership of twenty-seven, the capacity of the school. This, however, does not include the food supplies furnished by the Anti-Tuberculosis Association during the first term. This society also furnished the chair bags, and assisted materially in other ways until the school was well established.



The further extension of this work can be made very satisfactorily and most economically by changing the windows of one room in each of several large buildings, so they can be easily and fully opened. This room should be on the south side of the building, opened to the sun but least exposed to the storms. In this way, open air schools could be provided for all pupils needing the treatment without requiring them to go long distances.

The experience of the past year has demonstrated that our schoolrooms generally are much overheated and are supplied with air much too dry. Not only the health and comfort but the scholarship would be greatly improved by furnishing less heat and more moisture in the air. Our standard of temperature should be lowered five degrees at least. How the necessary humidity may be secured is a problem for others to solve.

### SIGHT AND HEARING TESTS

The annual tests of the sight and hearing of the school children, except those in the first year primary and kindergarten classes, were made in October. Parents of children found seriously defective were notified as required by law, and many of the cases reported have received professional treatment. The percentage of defectives was somewhat smaller this year than last, the per cent of defective eyes being twenty, the same as last year, and the per cent of defective ears being two and one-half instead of three.

The results of the examinations were as follows: Number enrolled, 15,744; number examined, 12,791; number defective in sight, 2,549; number defective in hearing, 320; number of parents notified, 1,888.

### EXAMINATION OF THE TEETH OF THE SCHOOL CHILDREN

This examination has been continued during the year under the same conditions as last year. The following facts are reported by Dr. R. R. Andrews, who, together with his associates, have taken great interest in this important work:—

The dentists of Cambridge have examined the teeth of the children of the Wellington, Kelley and Gannett schools, and are now at work on those of the Roberts. The teeth of about two thousand children have been examined. The dentists find the mouths of the

older children in deplorable condition—quite ninety-five per cent need immediate attention in order to save what few teeth can be saved. The condition of the younger children is a little better, although most of the sixth year molars need immediate attention to save them. Very few of the children examined give their teeth any care—even the tooth brush being used very little.

Much might be done for mouth sanitation by clear definite talks to the children, showing the great need of good teeth and a healthy mouth. Such talks can be given by the teachers and by the dentists.

The Committee interested in dentistry for school children is trying to establish in East Cambridge a *school dental clinic*, where the urgent cases can be attended to at a very small cost to the children—enough to pay for materials. It has already secured about \$250 for this object and wants about \$250 more, which it hopes to raise before another fall. If the School Committee can provide a room for this purpose, the dentists of Cambridge are willing to give their time. They would fill the teeth of the children with plastic filling, extract those that cannot be saved, and give advice how to keep the mouth clean and healthy. They wish to be of more real service to the children.

The examinations are made on Thursday mornings at the school, from 9 to 10.30 o'clock, four dentists usually being in attendance.

After the examination, a card, similar to the following, properly marked and filled out, is given to each child in need of professional treatment. A duplicate card is kept on file at the school.

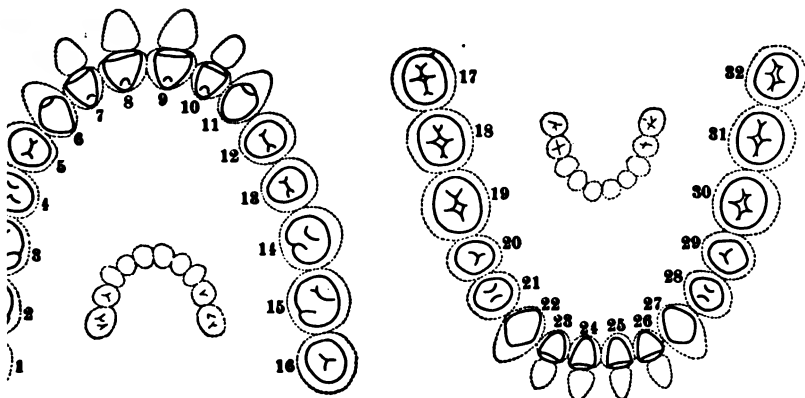


School.

Pupil.....Age.....

Parent.....

Address.....



### NOTICE TO PARENTS.

..... has been examined by me and found to  
 teeth which must be attended to. You are advised to apply at once to your family dentist for  
 ent. If circumstances do not permit consulting a dentist at his office, the child will be treated at  
 the Harvard Dental School Infirmary, Longwood Avenue, cor. Wigglesworth Street, Brookline,  
 ay, Tuesday, Wednesday and Friday mornings at 9 o'clock, and every afternoon at 2 except  
 ay; or at the Tufts College Dental School Infirmary, 416 Huntington Avenue, Boston, every  
 g at 9.

D.M.D.

Examining Dentist.

## DENTAL DEPARTMENT OF THE AMBRIDGE PUBLIC SCHOOLS

As the germs of Consumption get into the body through decayed  
 teeth, all decayed teeth must be attended to at once.

### DIRECTIONS FOR THE CARE AND USE OF THE TEETH.

- The teeth should be thoroughly brushed after each meal, and especially before going to bed.
- A tooth powder used on the brush helps to clean the teeth.
- The slow and thorough chewing of all food helps to preserve the teeth and keep the mouth  
 healthy condition.
- Children's teeth must be examined by a dentist at least twice a year.

## SEWING AND MANUAL TRAINING

At the opening of the fall term courses in sewing for the girls and in wood work for the boys were established for all pupils of the last three years of the grammar schools, two hours a week being given to these subjects in the last two years and one hour a week in the other.

The shop work for the boys has been carried on under some difficulties, due chiefly to necessary passing of many boys from their own school to another building for their lessons. But, hereafter, the conditions will be much improved as the boys of the Roberts and Russell schools will be provided for in those buildings.

The work in sewing, which was started in these grades last year, has generally been very creditable both to the girls and to the teachers. The shop work of the boys has varied considerably in quality, due both to the great difference in the mechanical ability of the boys and to the varied skill of the instructors. This being the first year of this kind of work for most of the boys, it has necessarily been very elementary in character. It will take about two years more to show the full scope and value of these courses.

Miss Gordon, the Director of Sewing, reports as follows upon the work of the year:—

“Upon entering the sewing class each girl makes a sewing bag of print or gingham, which gives practice in the plain stitches—basting, stitching, overcasting, overhanding, hemming and running—in which she preserves her own work for reference.

“The next piece of work is a gored flannel skirt, cut by pupils, a few at a time, while the others are sewing. When all are cut out, one or two lessons are taken for pinning and basting the parts of the skirt, which is then laid aside until the sewing bag is finished. In addition to the plain stitches, this garment gives practice in gathering and in feather stitching. Average pupils will complete this amount of work in a school year.

“In the eighth year, hemstitching is first taught, and each girl hemstitches a towel of huckabuck. These towels have been well done, and the work much enjoyed. The garment in this year is a kimono, a long-sleeved apron, nightdress or guimpe. Any extra time is spent on fancy stitches or some smaller garment.

“In the ninth year, the majority of the garments are dresses. There are also some nightdresses, kimonos, white skirts, guimpes, shirt waists and long-sleeved aprons. Nearly all pupils also make a

muslin apron or fancy bag for hand work. On the garments all seams and tucks are stitched on the machine. The use of the machine has given great pleasure to the girls, many of whom had never been allowed to run one before. Instruction in using patterns is given in this grade, each girl having one of her own. It is expected that every girl will be able to complete three garments, at least, during her course in sewing, and also learn to darn stockings and make button holes."

### DIRECTOR OF MUSIC

Early in the fall term Mr. Frederick E. Chapman, who had been director of music since January, 1891, tendered his resignation to take effect at the pleasure of the School Committee, but not later than September 1, 1911, stating that he had a chronic throat trouble of which he could not hope to be permanently relieved in this climate. No action having been taken upon his resignation, Mr. Chapman, in December, requested a leave of absence from the first of February to the end of the school year and his request was granted. It is not Mr. Chapman's intention to return next year as he feels that his health will not warrant it and that, after twenty years of service, he owes it to himself to take sufficient time for complete rest. That he may fully recover his health and may soon be able to resume work under favorable and enjoyable conditions is the sincere wish of his many friends in Cambridge.

As soon as it became known that Mr. Chapman wished to retire at the middle of the year, several promising candidates for the prospective vacancy appeared. After a very careful investigation, Mr. John B. Whoriskey was selected to take charge of the music until September 1, 1911. Although Mr. Whoriskey had had no experience as instructor in the public schools, his temperament, personality, musical ability and experience elsewhere gave every promise of his success in the position. Thus far he has proved a valuable man, satisfactorily meeting every reasonable demand and expectation.

### DRAWING

The following report is submitted by Mr. Roos, the Director of Drawing:—

"In the department of art education the new developments in the High and Latin School are especially noteworthy. That the

pupils have availed themselves of the opportunities opened for them is shown by the large number who are taking the subject as an elective study.

"Until the four-years course becomes fully established the work of the teacher will increase each year. Some of the classes are very large and, if this attendance should increase, there will be need of an additional teacher for the coming year. Miss Carret's work is being done under difficulties owing to a lack of proper equipment. With the facilities that the new rooms will afford and with the continued interest of the school authorities the future of art education in the Cambridge schools is very promising.

"In the primary and grammar grades the course is undergoing readjustment to the new arrangement of grades and years and will be ready for the teachers on the opening of the next school year. With the approval of the superintendent, water colors are to be placed in the ninth grade. The introduction of sloyd in the upper grades will furnish an interesting motive for the mechanical as well as for the decorative side of the art course.

"With the changes in the High and Latin School it has become possible for the assistant teacher, Miss Jennison, to visit the primary schools oftener than in former years. She also visits the fourth and fifth year classes in some of the mixed schools. My time has, for the greater part, been given in the grammar schools and to some extent in the High and Latin School and the evening free-hand school.

"The plan for holding exhibitions of the work of pupils every third year will be worked out in four of the large schools this year, viz., the Fletcher, Peabody, Putnam and Webster. About an equal number will take up the plan next year, and still others the following year, so that there will be, in the different sections of the city, an exhibition every year. The High and Latin School will hold exhibitions annually."

### EVENING SCHOOLS

There are eight evening schools—one industrial school, two drawing schools, one high school, and four elementary schools. In accordance with the rules of the School Board, there are two terms of the evening schools. The first term begins on the second Monday of October and continues every Monday, Wednesday and Friday evening until the end of the week before Christmas. The second term begins on the first Monday, Wednesday or Friday evening after the opening of the day schools in January, and continues at least

twenty-five evenings. The sessions begin at half past seven o'clock and continue two hours. No session is held on the evening of a holiday or during the vacations of the day schools.

The Evening Industrial School is held at the Rindge Manual Training School building, and offers courses in machine shop work, wood-turning, pattern-making, forging and foundry work. The head master of the Rindge Manual Training School is principal of the school.

The Mechanical Drawing School is in the same building and in charge of the same principal as the Industrial School. This school provides two courses in drawing—a three-years course in machine drawing, and a three-years course in architectural drawing.

The Free-hand Drawing School occupies one room in the English High School building and is under the supervision of the director of drawing for the day schools. This school offers a three-years course in free-hand drawing which includes drawing from a life model. Diplomas are given to graduates of both drawing schools.

The Evening High School is held in the English High School building and offers a three-years course of instruction in the following subjects: Commercial arithmetic, bookkeeping, algebra, geometry, stenography and typewriting, English composition, English literature, civics, history, Latin, French and German. Diplomas are given to graduates of the three-years course.

The evening elementary schools occupy rooms in four of the grammar school buildings, the Putnam, Roberts, Shepard and Webster. Reading, writing, arithmetic, geography, language, history and bookkeeping are taught in these schools in classes, so far as classification is possible, but a large part of the work is individual. No definite course is arranged, but an opportunity is offered to pupils to prepare to enter the Evening High School, and certificates are given to those who are qualified to begin work in that school. In addition to the subjects given above, classes in civil service, sewing, dressmaking, millinery, wood-working and mechanical drawing are formed when a sufficient number express an intention to take any of these courses.

The Evening Industrial School, the two drawing schools and the classes in dressmaking and millinery in the four elementary schools, have been carried on by the School Committee under the direction of the State Board of Education.

The Director of Evening Schools reports that hardly a school has the same teaching staff for two consecutive years, and that

usually not more than sixty per cent of the old pupils return each year.

The attendance in all the schools has been somewhat less than last year. The decrease at the Shepard School has been so marked that it seems well to consider whether the school should not be opened in some other building. As a number of pupils come from the Mt. Auburn district, perhaps one of the buildings in that part of the city would prove a better location. The attendance of illiterate minors is not as regular as it should be, and a more rigid enforcement of the legal requirements seems necessary.

Good progress has been made towards classifying the pupils in the dressmaking sections so as to have them work in definite courses of two or three years. The teachers are expected to teach and guide the pupils in their work rather than merely assist them in making some garment.

It is difficult to secure enough satisfactory teachers for the evening schools. Untrained and inexperienced persons generally prove inefficient. The day school teachers are by far the most successful, but few of them are able to teach both day and evening schools without overtaxing their strength and diminishing their efficiency.

The following table shows the attendance at the evening schools, including the attendance at the industrial schools and at the industrial classes in the elementary schools, which were carried on under the direction of the State Board of Education during the year 1910-1911:—

	Number Registered	Average Attendance	Average No. of Teachers*	Average No. of Pupils to a Teacher	Number of Graduates
Industrial School.....	107	51	4	13	7
Mechanical Drawing ..	117	47	4	12	7
Free-hand Drawing ...	57	23	2	11	2
High School .....	315	156	10	15	18
Putnam School .....	725	220	19	12	34
Roberts School. ....	758	298	25	12	36
Shepard School .....	176	74	6	12	12
Webster School .....	302	112	10	11	18
Total .....	2,557	981	80	12	134

\* The principals and curators are not included in these averages.



The following table shows the attendance at the industrial schools and at the industrial classes in the elementary schools:—

	Number Registered	Average Attendance
Industrial School .....	107	51
Mechanical Drawing School .....	117	47
Free-hand Drawing School .....	57	23
Putnam School .....	110	41
Roberts School .....	134	60
Shepard School .....	88	32
Webster School .....	86	27
Total .....	699	281

The following table shows the cost of the evening schools, including the cost of the industrial schools and of the industrial classes in the elementary schools, which were carried on under the direction of the State Board of Education during the year 1910-1911:—

	Cost of Instruction	Cost of Text-Books and Supplies	Cost of Light, Fuel and Janitors	Total Cost	*Cost per Pupil
Industrial School .....	\$1,309 00	\$226 49	\$641 09	\$2,176 58	\$43 44
Mechanical Drawing .....	819 00	141 41	333 66	1,294 07	28 36
Free-hand Drawing .....	378 00	36 77	54 71	469 48	22 10
High School .....	1,585 00	120 09	601 87	2,306 96	15 04
Putnam School .....	2,192 50	61 91	484 09	2,738 50	12 62
Roberts School .....	2,721 00	79 16	501 98	3,302 14	11 21
Shepard School .....	924 50	5 69	134 20	1,064 39	14 91
Webster School .....	1,224 00	39 02	353 80	1,616 82	14 78
Director of Evening Schools .....	315 00	.....	.....	315 00	.....
Total .....	\$11,468 00	\$710 54	\$3,105 40	\$15,283 94	\$15 58

\* In obtaining the cost per pupil in each school, a proportional part of the salary of the Director of Evening Schools is added to the cost of each school as given above.

## VACATION SCHOOLS

The vacation schools for the summer of 1910 opened on Tuesday, July 5, in the following school buildings: The Rindge Manual Training, the English High, the Putnam, Roberts, Shepard and Webster, and continued for five weeks, closing on Friday, August 5.

There were two sessions of two hours each for five days in the week, one division attending the first two hours, and another the last two hours. At the beginning it was found necessary, on account of the large numbers in the divisions, to have a division in sloyd and another in cooking in the afternoon, but as the numbers decreased, all of the divisions were cared for in the morning.

The experiment of establishing a special class for ninth year pupils, who had failed in June to secure certificates admitting them to the high schools, proved of great advantage to those children. By means of the summer school work a large per cent of them were able to pass the entrance examination in September without having been put to the expense of a tutor. No class of pupils in the vacation schools received greater benefit than this one. In fact, the new emphasis placed upon the academic work in all the grammar grades last summer proved very profitable to many children who had failed of promotion.

One thousand three hundred thirty cards were issued from the office to pupils from the grammar grades in any school in the city. After the first day any pupil from a grammar grade was allowed to enter without a card. The cards were given in order that the pupils might know which school to attend and be able to begin work the first day.

One thousand one hundred fifteen pupils were registered, and the average attendance was six hundred eighty-one. The interest in the schools continued until they closed, as on the first Friday there were eight hundred twelve present, and on the last Friday six hundred fifty-six.

The older pupils were given a choice of either basketry, cooking, sewing, sloyd or academic work. The younger pupils were given lessons in water color painting, reading, writing and in many other kinds of work that were pleasing and profitable to them. Trips were taken to Agassiz Museum and to other places of interest.

Five teachers of sloyd were employed, two of basketry, two of cooking, six of sewing, one of music, and eleven with the academic pupils, a total of twenty-seven.

The following table shows the number in attendance at each school, and the line of work in each:—

SCHOOLS	Subject	Number Registered	Average Attendance
Rindge Manual Training School.....	Sloyd .....	59	31
English High School .....	Academic ..	113	88
	Basketry. . .	66	53
	Cooking . . .	84	48
	Sewing . . . .	34	21
	Sloyd. . . . .	40	26
Putnam School .....	Academic ..	109	33
	Sewing . . . .	60	34
	Sloyd. . . . .	40	10
Roberts School .....	Academic ..	84	46
	Sewing . . . .	58	29
	Sloyd. . . . .	54	28
Shepard School .....	Academic ..	78	68
	Sewing . . . .	45	39
Webster School .....	Academic ..	105	62
	Sewing . . . .	86	65
Total .....	.....	1,115	681

The following table shows the number registered in each subject with the average attendance:—

	Number Registered	Average Attendance
Academic .....	489	297
Basketry .....	66	53
Cooking .....	84	48
Sewing .....	283	188
Sloyd .....	193	95
Total .....	1,115	681

The cost of the vacation schools was \$1,423 for salaries of teachers; \$160 for salaries of janitors, and \$219.68 for supplies, a total of \$1,802.68, or \$2.64 per pupil, based on the average attendance.

## TRUANT OFFICERS

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JOHN CARMICHAEL

TRUANT OFFICER

1893—1910

Died October 1, 1910

A faithful, efficient, highly respected officer

---

The city is divided into four districts, and to each of these districts a truant officer is assigned. Among their duties are the following: To visit each school at least once a day, unless otherwise directed by the agent of the Board; to prevent children from loitering about the school premises; to notify the teachers of all cases of contagious or infectious diseases reported by the board of health; to attend the evening schools when so directed by the agent; to assist in the preservation of order, and to visit places of business where children are employed, to see that none are employed unlawfully. They make all complaints at the district court for truancy, and take boys to the Middlesex County Truant School when they are sentenced.

The work of the truant officers is carried on under the supervision of the agent of the Board, whose duty it is to consider all cases of truancy, of persistent violation of the rules of the schools, of juvenile vagrancy, of unlawful detention from school, of neglect by parents; and of any failure on the part of pupils or parents to comply with the rules of the School Board or the public statutes relating to school attendance. It is also the duty of the agent to direct the officers to make complaints; to certify to the records in these cases when presented before the district court; and to exercise such supervision of the boys who are sent by the court from Cambridge to the truant school as may be allowed under the statutes.

The following is a summary of the work of the truant officers during the school year from September 1, 1909, to July 1, 1910:—

Whole number of absences investigated .....	12,124
Truancy, first offence .....	743
Truancy, third offence .....	144
Truancy, fifth offence or more .....	168
Complaints at court .....	10
Children put on probation .....	1
Sentenced by the court .....	9
Children found wandering about the streets .....	83
Such children sent to school .....	65
Visits to mercantile or manufacturing establishments .....	334
Children employed without certificates .....	8

The statistics of the private schools, obtained by one of the officers, show that there are ten private schools in the city, which receive \$45,626 for tuition, and five parochial schools. The following is the number of pupils in these schools:—

Parochial schools .....	3,842
Private schools .....	315
Total number of pupils not in public schools .....	4,157

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### CONCLUSION

Many changes both in the organization of the schools and in the courses of study have been made during the year, but they have been recommended only after a careful study of local conditions and always with the welfare of the children and the community in mind. It is only natural that these changes should call forth criticisms both favorable and unfavorable, as they have. But the unbiased criticism of the competent is always helpful and even from the honest criticism of the incompetent much may be learned. If any persons, having the best interests of the schools at heart, have been disturbed by the changes or made fearful of the results either in efficiency or in expense, I would ask them to suspend their judgment until time demonstrates the wisdom or unwisdom of what has been done. In the nature of the case the evidence is incomplete at present, and no prophecy will change the final verdict of experience.

In closing, I wish to thank most sincerely the members of the Committee, who have worked so untiringly for the improvement of the schools, the large body of worthy teachers, who have constantly co-operated with me in the effort to meet more fully the educational needs of the children, and the many citizens, who have given words of appreciation and encouragement during the year.

Respectfully submitted,

FRANK E. PARLIN,  
*Superintendent of Public Schools.*

## REPORT OF THE SUPERINTENDENT OF PUBLIC BUILDINGS

FRANK E. PARLIN, A. M.,  
*Superintendent of Schools,*  
Cambridge, Mass.

*Dear Sir:*—At the suggestion of Professor Beale, I submit the following report of the work on schoolhouses during the past year, together with a recommendation:—

In addition to the ordinary repairs on schoolhouses, the past year witnessed a beginning in the direction of securing better and safer heating and ventilating conditions for our old buildings. The presence of eight hot air furnaces in the basement of the old buildings of the Webster School, with their accompanying danger to life and health, made so strong a contrast with the fireproof building and modern heating apparatus of the new addition, that a beginning was made at this school to correct an evil which exists in a large number of our school buildings. By removing these furnaces and the installation of an additional boiler it was possible to secure for the old buildings a near approach to the ideal ventilating conditions existing in the new addition.

For the forthcoming year I would respectfully suggest that this work, so well begun, should continue, and plans be prepared to secure the improvement of as many schoolhouses from the standpoint of safety from fire as is possible. In order to do this, the tinting of classrooms, the renewing of floors and furniture, and other work which might well be held in abeyance, be postponed, and the money ordinarily spent for these purposes be applied to the work of making these necessary and vital changes.

Following is a brief statement of repairs made on schoolhouses during the past year:—

*Agassiz.*—New floors in three class and dressing rooms; new shades; roof repaired and guaranteed for two years.

*Boardman.*—Classrooms tinted.

*Ellis.*—Concrete chimney caps; slate blackboards repaired; new stair treads; classrooms tinted.

*Fletcher.*—Changed ash lift and protected covers; classrooms tinted.

*Gannett.*—Painted outside, and classrooms tinted; new shades.

*Gore.*—Tinted two classrooms and corridor.

*Harvard*.—Painted outside.

*High*.—Concrete chimney caps.

*Houghton*.—Classrooms tinted; new desks and irons in three  
classrooms.

*Kelley*.—Granolithic walk.

*Latin*.—Repairs in gymnasium; new seats and desks.

*Lowell*.—New folding gate; new shades.

*Merrill*.—New boiler grate and setting.

*Morse*.—Painted inside; new boiler tubes.

*Parker*.—Painted inside; classrooms tinted; copper conductor.

*Putnam*.—New stair treads; classrooms tinted.

*Rindge*.—Roof and conductors repaired; new shades.

*Roberts*.—New fence; new shades; new treads; classrooms  
tinted; painted inside and outside.

*Russell*.—Blackboards repaired.

*Shepard*.—Classrooms tinted; new floors in two rooms; new  
shades.

*Sleeper*.—Ash hoist; new shades; concrete chimney caps.

*Tarbell*.—Classrooms tinted.

*Taylor*.—New section of fence; new boiler tubes.

*Wyman*.—Classrooms tinted.

*All Schools*.—Setting glass; carpenter repairs; boilers and  
furnaces repaired.

Boiler changes were made in the following schools to bring the  
auxiliary heaters under the rules of the boiler inspection department  
of the district police—Ellis, Felton, Fletcher, Harvard, Houghton,  
Kelley, Morse, Parker and Wellington.

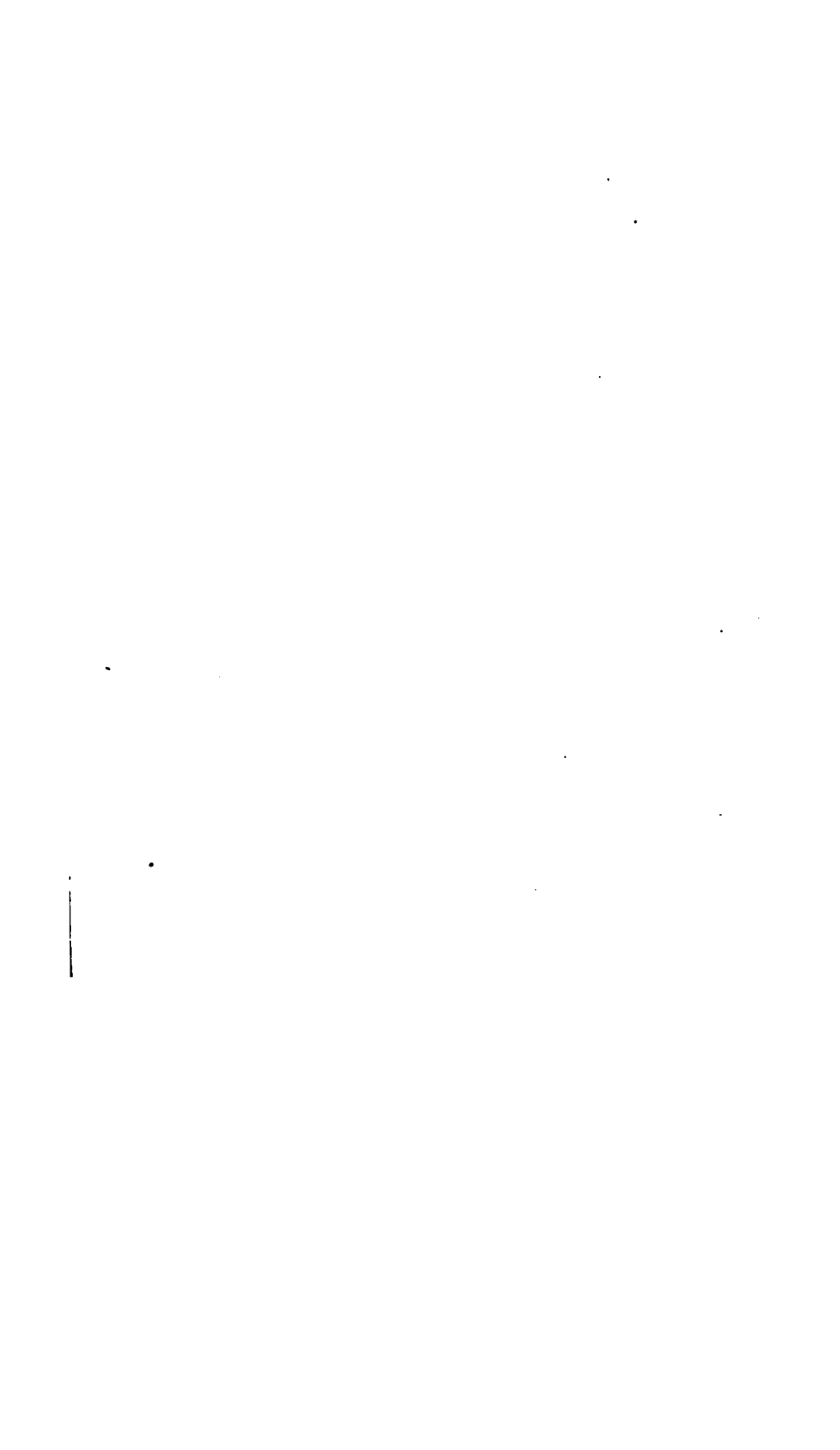
Respectfully,

JEREMIAH F. DOWNEY,  
*Superintendent of Public Buildings.*





# STATISTICS



## FINANCES

For the financial year from April 1, 1910, to April 1, 1911

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 RECEIPTS

Amount received from the tax levy under the City Charter .....	\$524,687 95
Revenue received.....	10,822 26
Total amount available for school purposes .....	<u>\$535,510 21</u>

## EXPENDITURES

Salaries of teachers, all schools.....	\$389,219 05
General expenses .....	18,339 83
Text-books and supplies .....	27,791 75
Physical apparatus .....	1,448 27
Care and repair of buildings .....	62,316 06
Heat and light .....	22,466 40
Transportation of pupils .....	327 00
Support of truants .....	2,287 69
Drinking fountains .....	1,050 60
Other school expenses .....	1,390 96
Transferred for repairs to the Webster School building .....	8,345 80
Tuition of Cambridge pupils in Boston Trade School for Girls ...	383 21
Total amount expended .....	<u>\$535,366 62</u>
Balance unexpended .....	143 59

## COST OF INSTRUCTION IN THE DAY SCHOOLS.

Salaries of teachers, superintendent, supervisor, agent, clerks, and truant officers.

Year	*Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for Year Ending in June	Total Cost	Cost per Pupil
1903	428	14,935	14,397	\$349,179 80	\$24 25
1904	435	15,075	14,454	356,406 89	24 66
1905	447	15,364	14,606	366,448 39	25 09
1906	455	15,475	14,907	377,343 02	25 31
1907	460	15,580	14,957	385,927 00	25 80
1908	454	16,019	15,214	374,000 99	24 58
1909	457	15,895	15,465	389,919 31	25 21
1910	456	15,633	15,457	391,398 56	25 32

## COST OF THE DAY SCHOOLS.

Cost of instruction, of text-books and supplies, of incidental expenses, of the care of truants, of the care of schoolhouses, and of the transportation of pupils.

Year	*Number of Teachers in December	Number of Pupils in December	Average Number of Pupils for Year Ending in June	Total Cost	Cost per Pupil
1903	428	14,935	14,397	\$429,554 39	\$29 84
1904	435	15,075	14,454	450,310 44	31 15
1905	447	15,364	14,606	462,412 09	31 66
1906	455	15,475	14,907	464,529 43	31 16
1907	460	15,580	14,957	488,636 18	32 67
1908	454	16,019	15,214	477,286 82	31 37
1909	457	15,895	15,465	489,712 68	31 66
1910	456	15,633	15,457	492,579 06	31 86

\* The unassigned teachers are not included in the number of teachers.

## COST OF INSTRUCTION IN THE EVENING SCHOOLS.

Year	Drawing	Industrial	High	Elementary	Director	Total
1908	\$1,291 00	\$1,345 00	1,649 00	\$7,574 00	.....	\$11,859 00
1909	1,249 00	1,300 00	1,597 00	7,308 50	.....	11,454 50
1910	1,197 00	1,309 00	1,585 00	7,062 00	\$315 00	11,468 00

## COST OF INSTRUCTION.

From April 1, 1910, to April 1, 1911.

Schools and Officers	Cost of Instruction	Average Number of Pupils	Cost per Pupil
High and Latin School .....	\$52,431 41	994	\$52 74
Rindge Manual Training School .....	31,739 02	549	57 81
Training School (Teachers) .....	15,803 11	807	19 58
Grammar Schools (Except Training) .....	146,748 40	7,054	20 80
Primary Schools (Except Training) .....	86,047 08	5,321	16 17
Kindergartens .....	19,249 74	732	26 29
Fresh Air School .....	920 08	.....	.....
Manual Training in Elementary Schools ..	2,923 00	.....	.....
Substitutes .....	4,708 54	.....	.....
Directors in Drawing .....	2,850 00	.....	.....
Directors in Music .....	2,984 00	.....	.....
Directors in Physical Education .....	2,141 92	.....	.....
Teachers of Sewing .....	2,887 25	.....	.....
Unassigned Teachers .....	4,264 50	.....	.....
Superintendent .....	3,792 00	.....	.....
Supervisor of Primary Schools .....	1,350 00	.....	.....
Secretary and Agent .....	2,850 00	.....	.....
Clerks .....	2,254 26	.....	.....
Truant Officers .....	3,954 25	.....	.....
Porter .....	700 00	.....	.....
Rindge Manual Training School, summer sessions for Harvard Students .....	800 00	.....	.....
Total .....	\$391,398 56	15,457	\$25 32

Cost of instruction in Evening Drawing Schools .....	\$1,197 00
Cost of instruction in Evening Industrial School .....	1,309 00
Cost of instruction in Evening High School .....	1,585 00
Cost of instruction in Evening Elementary Schools .....	7,062 00
Salary of Director of Evening Schools .....	315 00

Total ..... \$11,468 00

Cost of instruction in Vacation Schools ..... \$1,423 00

## REPORT OF SCHOOL COMMITTEE

## SCHOOLS, 1910-1911—CARE AND REPAIR

NAMES	FUEL		REPAIRS					SUPPLIES					Extra Help	Janitors	Care of Flags	Total
	Coal	Wood	On Building	On Furniture	On Heating App's	Fur- niture	Gas	Electric	Sundries	Por- celains						
Agassiz	\$261 75	\$16 25	\$735 48	\$2 60	\$31 25	12 56	\$6 29		\$35 17	\$49 97			\$732 00			\$1,870 76
Boardman	260 20	16 88	226 08	6 20	10 50	12 56	6 46		25 14				732 00	1 19		1,297 21
Corbett	51 50	16 38	47 09	3 00	9 80				4 85				261 43			394 05
Cushing	103 00	16 37	25 21	3 00	13 15	7 53	8 33		62 29	6 13			1,098 00			427 67
Ellis	779 90	7 50	1,029 15	9 75	27 33	43 25			15 96				575 14			3,051 83
Felton	234 00	12 50	28 96				20 40			9 60			1,228 71			914 21
Fletcher	756 07	8 25	302 99	11 48	8 46	50	5 10	27 48					627 43			2,433 21
Gannett	311 23	16 25	157 81	3 00	17 50	45 75			52 30				941 14	1 16		1,330 84
Gore	128 55		138 90	4 31			18 53			1 00			1,307 14			2,318 16
Harvard	498 25		314 16	2 00			24 52		48 50	5 00		251 50	2,877 43			5,950 21
English High Bldg	1,498 00	30 00	736 33	40 70	24 24		369 96		92 40				1,228 71	1 18		2,819 42
Houghton	980 41	7 50	363 27	32 85	60 11		24 65		84 54	18 13			1,359 43	4 72		2,715 83
Kelley	781 50	16 50	334 17	50 95	49 61		4 25		77 11			15 00	3,122 86	1 16		6,894 84
Lassell	257 50	16 25	29 46			3 00		444 24	25 53	193 25			944 29			1,180 59
Latin Building	1,551 58	7 50	989 56	24 06	29 70	395 25	19 89		16 38			2 00	1,307 14	2 35		3,120 71
Lowell	164 00	13 00	184 76	1 50	121 07	31 00	4 50		49 34				941 14			1,262 99
Merrill	105 78	7 50	51 86		107 20				82 15	84 67			732 00			1,009 07
Morse	988 29	7 50	520 45	4 00	85 78		36 38		53 65	3 00			679 71	1 16		1,410 12
Otis	84 02	16 25	93 02		23 96		30 06		76 35	7 13			1,228 71	2 35		2,895 15
Parker	309 00	21 25	291 82	1 00	45 79	8 80	3 74	44 64	93 48	175 75			1,228 71	1 16		2,891 47
Peabody	721 00	7 50	506 74	3 15	273 91		115 09	159 24	11 52			536 00	3,890 57			8,298 52
Peterson	92 70	8 13	11 45	2 55	3 00				6 14				182 14			313 58
Reed	563 66		801 97	18 77	34 92	16 50	93 50	727 56	129 02	95 47			1,307 14			4,067 88
Rising M. T.	1,910 55		2 00		18 50	138 05	177 99	51 84	67 11	12 00		213 75	1,045 71			1,935 66
Riverview	104 80	12 00	1,182 75	2 00	64 11	22 75	12 00	10 00	54 73	4 50		102 00	941 14			1,725 73
Roberts	787 98	7 50	223 87		45 79	32 00	8 16		42 63	12 00			784 29	1 18		1,739 41
Russell	567 40	3 75	280 31	10 55	25 84	22 75	1 19		16 67				462 15	1 18		1,073 46
Shepard	262 00	3 75	339 66	12 80	7 00				66 13	4 00			941 14			1,948 69
Stearns	443 66	29 50	456 23	8 00	336 14		13 43						941 14	1 17		1,514 14
Tarbell	110 35	11 88	436 23				23 50						1,913 43			3,679 68
Taylor	283 25	7 50	303 11	2 00	21 03		47 26	139 08	105 52	43 30		242 55	2,592 00	2 38		4,266 61
Thorndike	412 00	16 25	31 13			5 25		49 20	74 57	6 13		26 50	941 14			2,102 44
Webster	1,023 19	15 00	424 43	26 90	17 75	4 60	44 54		47 25				627 43			1,099 63
Wellington	1,060 25	11 25	536 38		87 88				18 43	4 00		2 00	1,400 00			1,233 24
Willard	437 75	7 50	160 35	8 00	4 50	149 08	16 49		30 21	26 62						1,480 70
Wyman	262 01	10 31	160 35		98 00											28 50
Fresh Air	33 64	4 50	869 10	1 30		12 00			1 00	15 50						
All Schools			88 40													
Office																
	\$19,178 92	\$413 70	\$13,178 71	\$305 72	\$1,800 42	\$959 66	\$747 66	\$2,126 12	\$2,010 32	\$605 55	\$1,582 05	\$42,161 11		\$22 34		\$85,152 31

Care, repair and supplies distributed to schools as shown above.

Stock on hand April 1, 1911

Less stock on hand April 1, 1910

Amount expended for schoolhouse maintenance

\$85,152 31

921 56

\$86,073 87

1,291 41

\$84,782 46

## TEXT-BOOKS AND SUPPLIES

The following is an account of the purchases, expenditures and distribution of books and supplies during the school year 1909-1910. It is the twenty-fifth annual report of the agent, and the twenty-sixth in a series of reports of the supply department:—

Stock in storeroom July 1, 1909 .....	\$7,620 16	
Expended from the appropriation .....	23,934 80	
Value of exchanges .....	275 06	
		<u>\$31,830 02</u>
Distributed to schools, officers, etc. ....	\$23,502 28	
Sold for cash .....	296 91	
		<u>23,799 19</u>
Stock on hand July 1, 1910 .....		<u>\$8,030 83</u>

The purchases and expenditures appear in detail as follows:—

For text-books .....	\$9,275 08	
Desk and reference books .....	198 88	
Copy books .....	417 68	
Apparatus and furnishings .....	1,172 21	
Diplomas, \$14.40; printing, \$196.53 .....	210 93	
Repairing books, \$627.59; tuning pianos, \$39.50 ..	667 09	
Expressage and labor .....	523 65	
Miscellaneous supplies .....	11,744 34	
		<u>\$24,209 86</u>
Less the value of exchanges .....		275 06
		<u>\$23,934 80</u>

The net cost of text-books and supplies is as follows:—

Stock on hand July 1, 1909 .....	\$7,620 16	
Bills paid by City Treasurer .....	23,934 80	
		<u>\$31,554 96</u>
Stock on hand July 1, 1910 .....	\$8,030 83	
Cash paid to City Treasurer, sales and damages ..	831 01	
		<u>8,861 84</u>

We have net cost of all schools and officers ..... \$22,693 12  
or an average cost per pupil of \$1.468. The average  
cost per pupil for twenty-six years is \$1.326.

The annual cost per pupil for text-books and supplies since the introduction of free text-books is as follows:—

Year	Cost per Pupil	Year	Cost per Pupil	Year	Cost per Pupil
1885	\$1.880	1894	\$1.243	1903	\$1.306
1886	1.170	1895	1.152	1904	1.468
1887	1.051	1896	1.436	1905	1.434
1888	1.068	1897	1.094	1906	1.476
1889	0.960	1898	1.268	1907	1.620
1890	1.334	1899	1.225	1908	1.443
1891	1.248	1900	1.740	1909	1.551
1892	1.149	1901	1.203	1910	1.468
1893	1.109	1902	1.400	....	.....

The net cost of each grade of schools for text-books and supplies is as follows:—

	Net Expense	Cost per Pupil				
		1910	1909	1908	1907	1906
Latin School .....	\$977 05	\$2.044	\$3.333	\$2.349	\$4.136	\$3.036
English High School .....	2,115 78	4.100	3.748	6.496	4.894	4.425
Manual Training School .....	4,756 09	8.633	11.198	9.077	10.723	9.679
Training School, Teachers .....	1,097 09	1.359	1.504	1.328	1.127	1.126
Grammar Schools .....	3,536 30	1.148	1.257	1.128	1.315	1.343
Mixed Schools .....	6,352 51	1.049	0.924	0.835	1.156	0.981
Primary Schools .....	2,272 14	0.701	0.605	0.444	0.584	0.508
Kindergartens .....	334 73	0.457	0.345	0.582	0.353	0.494
Evening Schools .....	478 83					
Vacation Schools .....	15 22					
Special Teachers .....	111 33					
Officers of Board .....	172 65					
Miscellaneous Expenses (not chargeable to any grade) .....	499 21					
	\$22,718 93					
Less profit on sales .....	25 81					
	\$22,693 12	\$1.468	\$1.551	\$1.443	\$1.620	\$1.476



## GENERAL STATISTICS

## POPULATION OF CAMBRIDGE

1865.....	29,112	1895.....	81,643
1875.....	47,838	1905.....	97,434
1885.....	59,660	1910.....	104,391

## SCHOOL CENSUS

Number of children in the city five years old or more, but less than fifteen:—

Number of children in the city between five and fifteen, boys 8,458; girls 8,586 .....	17,044
Number in public schools between five and fifteen.....	12,966
Number in private schools between five and fifteen .....	3,560
Number not attending school between five and fifteen.....	518
Number in the city between five and six .....	1,685
Number in the city between seven and fourteen, boys, 6,009; girls, 6,151 ..	12,160

## SCHOOLS AND CLASSROOMS.

<i>a</i> High and Latin School .....	1	Classrooms in use .....	30
<i>b</i> Rindge Manual Training School. 1	"	" " " .....	15
<i>c</i> Grammar Schools.....	5	" " " .....	80
<i>d</i> Grammar and Primary Schools. 14	"	" " " .....	159
Primary Schools.....	13	" " " .....	73
Kindergartens .....	16	" " " .....	16
Evening Industrial School .....	1	" " " .....	4
Evening Drawing Schools .....	2	" " " .....	3
Evening High School .....	1	" " " .....	11
Evening Elementary Schools ...	4	" " " .....	31
Whole number of Day Schools .....			50
Whole number of classrooms for Day Schools .....			373
Whole number of Evening Schools.....			8
Whole number of classrooms for Evening Schools .....			49

*a* This school occupies two buildings and has assembly halls, libraries, lecture rooms, recitation rooms, chemical and physical laboratories, a drawing room and a gymnasium.

*b* This school occupies three buildings and has an assembly hall, drawing rooms, recitation rooms, chemical and physical laboratories, and rooms for various kinds of shop work.

*c* Four of these have assembly halls.

*d* Nine of these have assembly halls.

## REPORT OF SCHOOL COMMITTEE

## NUMBER OF TEACHERS IN THE DAY SCHOOLS.

December	High and Latin School*	Rindge Manual Training School	Grammar Schools	Primary Schools	Kinder-gartens	Directors and Special Teachers†	Total
1906	50	22	199	143	31	10	455
1907	51	25	199	143	31	11	460
1908	50	24	200	141	30	9	454
1909	47	24	204	142	30	10	457
1910	47	24	204	136	30	15	456

\* The unassigned teachers are not included.

† This list includes the directors of music, drawing and physical education, and the teachers of sewing and manual training in the elementary schools.

## ATTENDANCE AT ALL THE DAY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	16,740	14,907	13,855	92.9
1907	16,803	14,957	13,878	92.8
1908	17,135	15,214	14,144	92.9
1909	17,431	15,465	14,414	93.2
1910	17,156	15,457	14,376	93.0

## \*ATTENDANCE AT THE ENGLISH HIGH SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	619	570	545	95.8
1907	666	594	570	95.9
1908	640	584	560	95.8
1909	633	552	529	95.7
1910	574	516	496	96.1

## \*ATTENDANCE AT THE LATIN SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	577	530	508	95.8
1907	544	489	471	96.3
1908	547	506	487	96.2
1909	546	500	480	95.9
1910	514	478	460	96.3

\* September 1, 1910, the English High School and the Latin School were united under the name of the Cambridge High and Latin School.

## ATTENDANCE AT THE RINDGE MANUAL TRAINING SCHOOL.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	489	440	417	94.7
1907	475	428	409	95.6
1908	549	489	461	94.2
1909	603	538	511	95.0
1910	623	549	522	94.9

## ATTENDANCE AT THE GRAMMAR SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	7,412	6,887	6,508	94.5
1907	7,869	7,192	6,783	94.3
1908	7,909	7,283	6,892	94.6
1909	8,191	7,500	7,124	94.9
1910	8,254	7,569	7,142	94.3

## ATTENDANCE AT THE PRIMARY SCHOOLS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	6,682	5,738	5,273	91.9
1907	6,324	5,551	5,092	91.7
1908	6,562	5,653	5,171	91.5
1909	6,409	5,610	5,148	91.7
1910	6,230	5,613	5,162	92.0

## ATTENDANCE AT THE KINDERGARTENS.

Year	Number of Pupils Registered	Average Number Belonging	Average Daily Attendance	Per cent of Attendance
1906	961	742	604	81.3
1907	925	703	553	78.7
1908	928	699	573	81.9
1909	1,049	765	622	81.3
1910	961	732	594	81.1

## REPORT OF SCHOOL COMMITTEE

## NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE HIGH AND LATIN SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1910	100	14 years 6 months	338	14 years 8 months

## \*NUMBER OF PUPILS GRADUATED FROM THE ENGLISH HIGH SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1906	7	17 years 7 months	67	18 years 5 months
1907	11	19 years 1 month	108	18 years 7 months
1908	7	17 years 10 months	67	18 years 3 months
1909	5	17 years 9 months	80	18 years 6 months
1910	..	.....	78	18 years 6 months

## \*NUMBER OF PUPILS GRADUATED FROM THE LATIN SCHOOL.

Year	Boys	Average Age	Girls	Average Age
1906	27	18 years 6 months	32	18 years 8 months
1907	22	18 years 11 months	35	18 years 4 months
1908	27	18 years 8 months	35	18 years 8 months
1909	18	18 years 11 months	25	18 years 9 months
1910	18	18 years 7 months	31	18 years 10 months

## NUMBER OF PUPILS ADMITTED TO THE LOWEST GRADE OF THE RINDGE MANUAL TRAINING SCHOOL, WITH THE NUMBER OF GRADUATES.

Year	Admitted	Average Age	Graduated	Average Age
1906	167	14 years 11 months	45	18 years 9 months
1907	203	15 years 0 months	33	19 years 0 months
1908	205	15 years 0 months	51	18 years 8 months
1909	208	14 years 9 months	71	18 years 9 months
1910	219	15 years 2 months	68	18 years 1 month

\* September 1, 1910, the English High School and the Latin School were united under the name of the Cambridge High and Latin School.

## NUMBER OF PUPILS GRADUATED FROM THE GRAMMAR AND PRIMARY SCHOOLS.

Year	Grammar Schools	Average Age	Primary Schools	Average Age
1906	713	14 years 9 months	1,609	9 years 5 months
1907	735	14 years 9 months	1,467	9 years 5 months
1908	753	14 years 9 months	1,543	9 years 6 months
1909	756	14 years 9 months	1,516	9 years 5 months
1910	831	14 years 9 months	1,496	9 years 4 months

## LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE GRAMMAR SCHOOLS.

Year	In 4 years	In 5 years	In 6 years	In 7 years or more
1906	6 per cent	27 per cent	51 per cent	16 per cent
1907	6 per cent	27 per cent	50 per cent	17 per cent
1908	7 per cent	24 per cent	52 per cent	17 per cent
1909	6 per cent	21 per cent	54 per cent	19 per cent
1910	6 per cent	26 per cent	52 per cent	16 per cent

## LENGTH OF TIME IN COMPLETING THE COURSE OF STUDY IN THE PRIMARY SCHOOLS.

Year	In less than 3 years	In 3 years	In 3½ years	In 4 years	In 4½ years or more
1906	5 per cent	58 per cent	4 per cent	25 per cent	8 per cent
1907	4 per cent	61 per cent	3 per cent	23 per cent	9 per cent
1908	5 per cent	64 per cent	3 per cent	22 per cent	6 per cent
1909	4 per cent	61 per cent	4 per cent	22 per cent	9 per cent
1910	4 per cent	65 per cent	3 per cent	20 per cent	8 per cent

## NUMBER OF PUPILS IN THE HIGH AND LATIN SCHOOL, DECEMBER, 1910.

Year	Boys	Girls	Total	Per cent
Fourteenth .....	31	30	61	.052
Thirteenth .....	38	132	170	.145
Twelfth .....	56	171	227	.193
Eleventh .....	49	208	257	.219
Tenth .....	111	344	455	.391
Specials .....	..	4	4	....
Totals .....	285	889	1,174	....

## NUMBER OF PUPILS IN THE RINDGE MANUAL TRAINING SCHOOL, DECEMBER, 1910.

Year	Boys		Per cent
Thirteenth .....	119	This school is for boys only. It became a part of the public school system, January 1, 1899.	.207
Twelfth .....	116		.201
Eleventh .....	130		.228
Tenth .....	211		.366
Total .....	576		....

## NUMBER OF PUPILS IN THE GRAMMAR SCHOOLS, DECEMBER, 1910.

Year	Boys	Girls	Total	Per cent
Ninth .....	406	449	855	.111
Eighth .....	499	481	980	.127
Seventh .....	679	632	1,311	.170
Sixth .....	763	655	1,418	.184
Fifth .....	746	739	1,485	.192
Fourth .....	869	802	1,671	.216
Total .....	3,962	3,758	7,720	....

## NUMBER OF PUPILS IN THE PRIMARY SCHOOLS, DECEMBER, 1910.

Year	Boys	Girls	Total	Per cent
Third .....	872	844	1,716	.317
Second .....	1,004	838	1,842	.341
First .....	982	866	1,848	.342
Total .....	2,858	2,548	5,406	....

## NUMBER OF PUPILS AND TEACHERS IN THE KINDERGARTENS.

Year	Boys	Girls	Total	Number of Teachers
1906	398	402	800	31
1907	404	376	780	31
1908	427	440	867	30
1909	406	390	796	30
1910	381	376	757	30

## SUMMARY.

DECEMBER, 1910.

Number of pupils in the High and Latin School .....	1,174
Number of pupils in the Rindge Manual Training School .....	576
Number of pupils in the Grammar Schools .....	7,720
Number of pupils in the Primary Schools .....	5,406
Number of pupils in the Kindergartens .....	757
Number of pupils in the public schools, December, 1910 .....	15,633
Number of pupils in the public schools, December, 1909 .....	15,895
Decrease of pupils, 1910 .....	262
Decrease of pupils, 1909 .....	124
Increase of pupils, 1908 .....	439
Increase of pupils, 1907 .....	105
Increase of pupils, 1906 .....	111
Increase of pupils, 1905 .....	289
Increase of pupils, 1904 .....	140
Increase of pupils, 1903 .....	188
Increase of pupils, 1902 .....	253
Increase of pupils, 1901 .....	62

## REMARKS ON THE STATISTICS

The number of pupils registered in the day schools during the school year ending June 24, 1910, was 17,156, a decrease of 275 from the previous year; the average number belonging was 15,457, a decrease of 8; and the average daily attendance was 14,376, a decrease of 38. The number of pupils belonging to the day schools in December, 1909, was 15,895; in December, 1910, 15,633, a decrease of 262.

The cost of instruction for the day schools for the financial year from April 1, 1910, to April 1, 1911, which includes the salaries of the superintendent, supervisor, agent, secretary, clerks and truant officers, was \$391,398.56. The total cost of the day schools, which, in accordance with the statutory definition of the support of schools, includes the cost of instruction, text-books and supplies, incidental expenses, care of truants, care of schoolhouses, the cost of fuel and light, and the transportation of pupils, was \$492,579.06.

The registration in all the evening schools from October 10, 1910, to March 24, 1911, was 2,557, and the average attendance was 981. The total cost of these schools, which includes the cost of instruction, the cost of text-books and supplies, and the care of schoolhouses, including heat and light, was \$15,283.94.

## REPORT OF SCHOOL COMMITTEE

## NUMBER OF PUPILS REGISTERED IN THE EVENING DRAWING SCHOOLS, WITH THE AVERAGE ATTENDANCE.

	1907-1908	1908-1909	1909-1910	1910-1911
Number registered.....	142	157	159	174
Average attendance.....	77	74	79	70

## NUMBER OF PUPILS REGISTERED IN THE EVENING INDUSTRIAL SCHOOL, WITH THE AVERAGE ATTENDANCE.

	1907-1908	1908-1909	1909-1910	1910-1911
Number registered.....	93	98	111	107
Average attendance.....	57	56	59	51

## NUMBER OF PUPILS REGISTERED IN THE EVENING HIGH AND ELEMENTARY SCHOOLS, WITH THE AVERAGE ATTENDANCE.

	1907-1908	1908-1909	1909-1910	1910-1911
Number registered.....	2,742	2,525	2,446	2,276
Average attendance.....	1,123	1,047	952	860

## NUMBER OF PUPILS IN THE PRIVATE SCHOOLS IN CAMBRIDGE, INCLUDING THOSE IN THE PAROCHIAL SCHOOLS.

1905	1906	1907	1908	1909	1910
4,100	4,068	4,227	4,014	4,128	4,157

## NUMBER OF AGE AND SCHOOLING CERTIFICATES ISSUED.

1905	1906	1907	1908	1909	1910
666 *749	851 *1,137	868 *857	636 *538	913 *556	870 *285

\* Issued to minors over sixteen years of age.



## TABULAR VIEW

Teachers in Service April 1, 1911

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>High and Latin School</b>			
Leslie L. Cleveland	Head Master	Williams College, A.B.	Jan. 1910
Chester M. Bliss		Amherst College, A.B., A.M.	Sept. 1907
Thomas L. Bramhall		Harvard University, A.B.	Sept. 1910
George H. Cain		(Attended King's College)	Sept. 1909
Joseph A. Coolidge		Harvard University, A.B., A.M.	Mar. 1892
Cecil T. Derry		Harvard University, A.B., A.M.	Oct. 1905
Herbert H. Palmer		Amherst College, A.B.	Sept. 1909
John I. Phinney		Yale University, A.B.	Dec. 1897
Alfred R. Wightman		Brown Univ., A.M. and Harvard Univ., Ph.D.	Dec. 1905
S. Myrta Abbott		Normal School and Boston School of Domestic Science	Sept. 1908
Helen M. Albee*		Radcliffe College, A.B., A.M.	Sept. 1885
Alice C. Baldwin		Wellesley College, A.B.	Sept. 1895
Margaret S. Bradbury		Radcliffe College, A.B.	Jan. 1902
Alice M. Brown		Normal School of Gymnastics. (Special Courses)	Sept. 1910
Isabel S. Burton		(Private schools and studied abroad)	Sept. 1899
Ethel E. Carr		Radcliffe College, A.B.	Sept. 1908
Elise H. Carret		Normal Art School. (Special Courses)	Sept. 1910
Caroline Close		Cambridge Training School. (Special Courses)	Nov. 1874
Bertha L. Cogswell		Boston University, A.B., A.M.	Jan. 1894
Gertrude H. Crook		Boston Univ., A.B. Radcliffe College, A.M.	Sept. 1896
Mary L. Cunningham		Salem Normal School. (Courses at Radcliffe College)	Sept. 1900
Grace L. Deering		Maine Seminary. (Courses abroad and at Radcliffe College)	Feb. 1892
Grace E. Dennett		Radcliffe College, A.M. Simmons College, S.B.	Sept. 1907
Esther S. Dodge		Boston University, A.B.	Oct. 1897
Caroline Drew		(Private schools and studied abroad)	Oct. 1888
Elizabeth J. Fardy		Boston University, A.B.	Oct. 1909
Sara L. Fisher		Smith College, A.B.	Sept. 1910
Elizabeth B. Flanders		Framingham Normal School. (Courses at Radcliffe)	Sept. 1905
Florence H. French		Radcliffe College, A.B.	Nov. 1909
Margaret J. Griffith		Radcliffe College, A.B.	Sept. 1903
Mary C. Hardy		Smith College, A.B.	Dec. 1891
Elizabeth L. Huling		Radcliffe College, A.B., A.M.	Sept. 1905
Ellen P. Huling		Radcliffe College, A.B., A.M.	Sept. 1904
Sarah W. Kelly		Wellesley College, A.B.	Feb. 1911
Henrietta L. Kilpatrick		Royal University, A.B.	Sept. 1909
Maud A. Lawson		Radcliffe College, A.B.	Sept. 1892

\* On leave of absence for study or travel in accordance with the Rules of the School Committee.

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>High and Latin School—Con.</b>			
Henrietta E. McIntire		Radcliffe College, A.B., A.M.	Sept. 1891
Mary Moulton		(Attended Wellesley College 2 years)	Sept. 1890
Louisa P. Parker		Westfield Normal School. (Courses at Radcliffe College)	Mar. 1881
Helen N. Parsons		Smith College, A.B.	Feb. 1911
Lillian C. Rogers		Boston University, A.B.	Sept. 1893
Ethel V. Sampson		Radcliffe College, A.B.	Sept. 1899
Caroline A. Sawyer		Boston Univ., A.B. Radcliffe College, A.M.	Sept. 1886
Florence W. Smith		Radcliffe College, A.B.	Sept. 1897
Martha R. Smith		Boston Normal School	Jan. 1882
Jennie S. Spring		Smith College, A.B.	Mar. 1886
Delia M. Stickney		Institute of Technology, S.B.	Sept. 1888
Annie F. Stratton		Radcliffe College, A.B.	Sept. 1899
Helen A. Taff		Radcliffe College, A.B.	Sept. 1910
Mabel D. Watson		Radcliffe College, A.B.	Sept. 1901
Elvena Young		Bates College, A.B.	Feb. 1911
Martha L. Babbitt	Sec. and Lib.	Cambridge Training School	May 1887
Annie S. Dodge	Sec. and Lib.	Cambridge Latin School	Dec. 1892
<b>Rindge Manual Training School</b>			
John W. Wood, Jr.	Head Master	Harvard University, S.B.	Jan. 1899
Myra I. Ellis		Cambridge Training School. (Berlin University)	Feb. 1878
Helen W. Metcalf		Mt. Holyoke College, A.B.	Sept. 1898
Gertrude B. Rogers		(Attended Colby College 2 years). Tufts College 2 years, A.B.	Feb. 1911
Anna R. Ward		Indiana State University	Sept. 1909
Florence Waugh		Radcliffe College, A.B.	Sept. 1907
Ingolf V. Bockmann		Norway Technical School. (At- tended Sloyd schools)	Feb. 1911
Otis H. Bramhall		Harvard University, A.B.	Apr. 1908
Winburn S. Cannell		Tufts College, A.B.	Sept. 1908
Ernest Cobb		Tufts College, Ph.B. Harvard University, A.M.	Sept. 1910
James F. Conlin		Harvard University, A.B., A.M.	Feb. 1905
Ronald F. Davis		Mass. Normal Art School. (Special Courses)	Sept. 1910
Joseph B. Davison		Malden High School	Apr. 1909
Evan W. Griffiths		Harvard University, A.B.	Sept. 1903
John C. Hall		Boston University, S.B.	Sept. 1908
Edward R. Markham		Wesleyan Academy. (Courses in Mech. Engineering)	Sept. 1903
Clarence L. Mosher		Rindge Manual Training School	Sept. 1910
Joseph M. Norton		Dartmouth College, A.B.	Sept. 1899
Leverett L. Preble		(Private Instruction and Shop ex- perience.) (Special Courses)	Sept. 1910
Charles H. Richert		Boston Normal Art School	Dec. 1905
Frederic H. Sawyer		Harvard University, A.B., A.M.	Sept. 1908
James G. Telfer		Common Schools	June 1889

## TABULAR VIEW—Continued.

Is and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Manual Training School—Continued Vare</b>		Cambridge High School. (Mechanical Courses)	Aug., 1888
Wiggin		Harvard University, S.B.	Sept. 1910
Pike	Secretary	Bates College, A.B.	Sept. 1908
		Cambridge Latin School	Sept. 1909
<b>School aldwin</b>	Principal	Cambridge High School. (Courses at Harvard)*	Sept. 1882
racy	7	Cambridge High School. (Radcliffe College, 3 years)	Oct. 1904
J. Kelley	6	Boston University, A.B.	Sept. 1908
inehan	5	Trinity Coll., Washington, A.B. °	Sept. 1909
Dawson	4	Bradford Academy. (Special Courses)	Sept. 1902†
J. Nelligan	4-3	(Attended Salem Normal School) °	Dec. 1899
arsons	2	Private High School. (Attended Wellesley College) °	Mar. 1891
tedman	1	Cambridge High School. Kindergarten Training School	May 1896
<b>an School Karcher</b>	Principal	Cambridge High School. (Special Courses)*	May 1881
Gould	3	Colby Academy, N. H. (Boston University, 2½ years) °	Oct. 1904
Joslin	2	Northfield, Vt., High School	May 1891
oper	2	Salem Normal School °	Sept. 1907
Casey	2	Framingham Normal School °	Sept. 1910
raig	1	Kindergarten Normal School °	Sept. 1910
lake	1	North Andover High School	Jan. 1892
Brooks	1	Salem Normal School °	Sept. 1910
<b>School Deehan</b>	Prin. 2	Portland, Me., Normal School. (Special Courses)	Dec. 1893
McManama	1	Bridgewater Normal School °	Sept. 1907
<b>ool Grover</b>	Master	Adelphian Academy. Phillips Academy. (Course at Harvard)	Jan. 1879
utchins	9	Cambridge High School*	Sept. 1874
Blake	9	Wheaton Seminary	Sept. 1894
Bunker	9	Bridgewater Normal School	Nov. 1902
oy	8	Bridgewater Normal School. (Attended Chicago University)	Sept. 1906
J. Griswold	8	New Britain Normal School	Sept. 1894
Griswold	8	Terryville High School	Sept. 1893
ates	7	Framingham Normal School	Sept. 1909
Aulkner	7	(Attended Keene, N.H., High School)	Oct. 1887

ed the Cambridge Training School.  
ed the Wellington Training School.  
previous to this and resigned.

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Ellis School—Continued</b>			
Josephine C. Wyman	7	Farmington, Me., Normal School	Apr. 1903
Flora C. Ingraham	6	Providence Normal School	Oct. 1888
Mary A. Stephenson	6	Bridgewater Normal School	Sept. 1898
Sarah W. Mendell†	5	Tabor Academy. (Attended Quincy Training School)	Feb. 1901
Ellen J. Hunt	4	Salem Normal School	June 1883
<b>Felton School</b>			
C. Florence Smith	Prin. 3	Boston Normal School. (Harvard Summer School)°	Jan. 1888
Marcia R. Bowman	2	Framingham Normal School°	Sept. 1895
Carrie H. Smith	2	Cambridge High School*	Jan. 1875
Eleanor M. Stevens	1	Bangor, Me., Normal School°	Oct. 1903
<b>Fletcher School</b>			
George B. Colesworthy	Master	Bowdoin College, A.B. Harvard University, A.B.	Sept. 1903
Nellie A. Coburn	9	Lowell High School. (Attended Private Seminary)	Sept. 1901
Mary N. Flewelling	8	Salem Normal School°	Oct. 1904
Susan L. Senter	7	Medway High School°	Sept. 1898
Mary B. Cole	7-6	Radcliffe College, A. B.°	Sept. 1906
Emma G. Wentworth	6	Salem Normal School°	Oct. 1902
Frances E. Higgins	5	Cambridge High School	Sept. 1893†
Gertrude M. Webster	5	N. H. Training School. (Atten- ded Normal School)	Apr. 1905
Mary I. Chapin	4	(Attended Indiana Normal School)	Oct. 1904
Elmira F. Hall	4	Cambridge High School°	May 1897†
Gertrude M. Baker	3	Radcliffe College, A. B.°	Sept. 1905
Martha B. Perkins	3	Salem Normal School	Sept. 1904
Marion Prescott	2	Cambridge English High School°	Oct. 1898
Eva A. Taylor	2	Cambridge High School°	May 1896
Mabel A. Gauthier	1	Salem Normal School°	Dec. 1907
Hattie A. Thayer	1	Boston Normal School°	Sept. 1896†
<b>Gannett School</b>			
Mary A. Rady	Prin. 1	Normal School and School of Ex- pression. (Special Courses)	Sept. 1890
Gertrude T. Sullivan	3	Salem Normal School°	Dec. 1902
Margaret F. Sanderson	2	Salem Normal School°	Nov. 1900
Annie M. Billings	2-1	Cushing Academy. (Attended Quincy Training School)	May 1893
<b>Gore School</b>			
Mary E. Mulloney	Principal	Cambridge Training School. (Special Courses)	Sept. 1878
Minnie A. Doran	3	Salem Normal School. (Special Courses)°	Sept. 1895
Anastasia R. Peters	3	Newton High School. (Special Courses)°	Oct. 1892
Nora E. Reardon	3	Salem Normal School°	Sept. 1900
Mary L. Donovan	2	Cambridge English High School. (Salem Normal Sch., 2 yrs.)°	Dec. 1905

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

† Taught previous to this and resigned.

On leave of absence for study or travel in accordance with the Rules of the School Committee.

# REPORT OF SCHOOL COMMITTEE

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## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>School—Continued</b>			
W. L. McElroy	2	Salem Normal School	May 1888
McHugh	2	Salem Normal School*	Oct. 1894
Callahan	1	Salem Normal School	Sept. 1883
W. L. Dinneen	1	Salem Normal School*	Dec. 1908
Geary	1	Salem Normal School*	Jan. 1909
Hegarty	1	Coburn, Me., Classical Institute. (Special Courses)	Sept. 1896
<b>High School</b>			
L. MacGregor	Master	Richmond, N.S., High School. (At- tended Hyannis Normal Sch.)	Sept. 1906
W. B. Wellington	9	Wayland High School	Sept. 1868
J. French	9	Cambridge High School. (Special Courses)*	Sept. 1872
O. Young	8	Fall River High School	Sept. 1883
P. McCusker	8	Salem Normal School*	Sept. 1907
F. O'Brien	8	Gloucester High School. (At- tended Boston Normal Sch.)	Sept. 1909
Bartlett	7	Castine, Me., Normal School. (Special Courses at Harvard)	Sept. 1890
A. Nash	7	Bates College, Me. (Special Courses at Tufts and Radcliffe)	Dec. 1902
Sullivan	7	Framingham Normal School	Nov. 1909
Fabyan	6	Cambridge High School*	Jan. 1878
Street	6	Westfield Normal School. (At- tended Summer Institute)	Sept. 1889
Parmenter	6	Cambridge Latin School. (At- tended Summer Normal School)*	Sept. 1898
M. Fearn	5	Salem Normal School*	Mar. 1897
Lowell	5	Portland, Me., Normal School	Apr. 1898
E. MacDonald	4	Salem Normal School*	Jan. 1909
J. Patterson	4	Northampton High School. (Col- lege work at Harvard)	Dec. 1892
L. Setchell	4	Salem Normal School	Sept. 1888†
<b>Union School</b>			
J. White	Master	Bridgewater Normal School	Jan. 1906
E. Townsend†		Salem Normal School	Sept. 1900
Fay	9	(Attended Wellesley College)*	Sept. 1888
L. Kinsley	8	Boston Normal School*	Sept. 1888†
Ells	7	Hanover Academy. School of Science, Boston	Oct. 1886
J. Penney	7-6	Cambridge High School*	Apr. 1882
Shepherd	6	Cambridge High School*	Sept. 1882
J. Penney	5	Salem Normal School	June 1893
W. F. Callahan	5-4	Salem Normal School*	Nov. 1903
Beckwith	4	Westfield Normal School*	Sept. 1904§
Snow	4	Salem Normal School*	Sept. 1905
A. Tower	3	Cambridge High School*	Dec. 1870
Burke	3-2	Salem Normal School*	Sept. 1885
L. Cosgrove	2	Boston Normal School*	Sept. 1909
M. Alger	1	Cambridge High School*	May 1880
M. Doran	1	Salem Normal School*	Sept. 1904

ended the Cambridge Training School.  
ended the Wellington Training School.  
served for one year and was reappointed.  
save of absence for study or travel in accordance with the Rules of the School Committee.  
which previous to this and resigned.

## REPORT OF SCHOOL COMMITTEE

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appointment
<b>Kelley School</b>			
H. Warren Foss	Master	Colby College, Me., A.B.	Sept. 1904
Catharine A. McLean	9	Salem Normal School°	Oct. 1899
Ethel I. Murch	8	Cambridge English High School. (Summer School)°	Oct. 1899
Emma J. Houlahan	7	Salem Normal School°	Sept. 1903
Esther D. Paul	7-6	Boston University, A.B.°	Oct. 1899
Ellen A. Kidder	6	(Teachers' Courses and Summer Courses at Harvard)°	Oct. 1890
Carrie L. Power	5	Salem Normal School°	Oct. 1899
Maude M. Dutton	5	Bridgewater Normal School°	Oct. 1899
Mary L. Feeny	4	Salem Normal School°	Sept. 1907
Margaret B. McCullough	4	Salem Normal School°	Sept. 1908
Mary E. Regan	4-3	Salem Normal School°	Oct. 1899
Julia M. Horgan	3	Salem Normal School°	Sept. 1908
Mary E. Moran	3-2	Salem Normal School°	Oct. 1904
Ellen T. Carroll	2	Kindergarten Training School°	Sept. 1907
Olive L. Cook	1	Frammingham Normal School	Apr. 1905
Eva G. Oakes	1	Warren High School. (Martha's Vineyard Summer School, 5 years)	Oct. 1898
<b>Lassell School</b>			
Frances E. Whoriskey	Prin. 2	Cambridge Training School	Apr. 1881
Rose V. Collier	3	Boston Normal School	Sept. 1888
Elizabeth B. Gahm	2-1	Cambridge High School*	Sept. 1882
Mary B. Whoriskey	1	Kindergarten Training School°	Sept. 1895
<b>Lowell School</b>			
Eusebia A. Minard	Prin. 3-2	Truro, N. S., Normal School	Oct. 1893
Cora B. Poole	5-4	Salem Normal School°	Feb. 1906
Agnes J. McElroy	1	Salem Normal School°	Dec. 1891
<b>Merrill School</b>			
Louise W. Harris	Principal	Cambridge High School. (Special Courses)*	Jan. 1876
Julia M. Davis	3	Baltimore High School. (Mary- land Normal School, 1 year)°	May 1900
Katharine Pendergast	3	Warren High School°	Sept. 1900
Henriette E. de Rochemont	2	Portsmouth, N. H., Normal School	Sept. 1894
Nellie F. Walker	2	Kennebunk, Me., High School. (Attended Com. College)	Sept. 1890
Marion B. Magwire	1	Frammingham Normal School°	June 1894
Gertrude S. Thayer	1	Salem Normal School°	Sept. 1903
<b>Morse School</b>			
Mary A. Townsend	Master	Farmington, Me., Normal School	Apr. 1882
Mary E. Towle	9	Westfield Normal School	Feb. 1874
Clintina E. Curtis	8	Plymouth, N. H., Normal School	Dec. 1907
Ida J. Holmes	8-7	Rhode Island Normal School	Sept. 1895
Florence E. Hunter	7	Castleton, Vt., Normal School	Feb. 1900
Anna A. O'Connell	6	Bridgewater Normal School°	Sept. 1900
Lucy M. Soulée	6-5	Everett High School	Sept. 1893

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Morse School—Con.</b>			
Elizabeth H. Richards	5	Robinson Seminary, N. H. °	Jan. 1899
Alice E. May	4	Bridgewater Normal School	Oct. 1893
Mary E. Warren	4	Lawrence Academy, Groton	Jan. 1902
Bertha J. Waldron	3	Susquehanna Collegiate Institute	Sept. 1904
Edith M. Carman	3-2	Salem Normal School °	Dec. 1904
Elizabeth J. Baldwin	2	Boston Normal School °	Jan. 1886
Christina R. Denyven	1	Bridgewater Normal School °	Jan. 1888
Grace E. Lally	1	Boston Normal School °	Jan. 1909
<b>Otis School</b>			
Luella M. Marsh	Principal	Cambridge High School *	Feb. 1884
Gertrude H. Glavin	3	Bridgewater Normal School	Nov. 1909
Margaret Sullivan	3	Salem Normal School °	Oct. 1893
Julia S. Lewis	2	Framingham Normal School °	Nov. 1909
Julia A. Walsh	2	Salem Normal School °	Sept. 1910
Josephine M. Doherty	2-1	Cambridge High School *	Sept. 1877
Frances Allen	1	Cambridge High School *	Jan. 1873
Anna N. Sullivan	1	Boston Normal School °	Mar. 1901
<b>Parker School</b>			
Mary A. Knowles	Prin. 3	Howe High School, Billerica. (Special Courses)	Sept. 1897
Mattie S. Cutting	3	(Attended Worcester Normal School)	Oct. 1898
Helena Lyons	3-2	Framingham Normal School °	Sept. 1910
Irene M. Fitzgerald	2	Salem Normal School °	Sept. 1909
Rose M. O'Toole	1	Fitchburg Normal School. (Post- graduate Course, 2 yrs.)	Jan. 1910
Agnes Marchant	1	Mt. Holyoke Seminary. Bridge- water Normal School. (Spec- ial Courses) °	Oct. 1894
<b>Peabody School</b>			
H. Herbert Richardson	Master	Tufts College, A.B.	Sept. 1904
Charlotte A. Ewell	9	Cambridge High School	Mar. 1868
Katherine L. Carr	9	Potsdam, N. Y., Normal School	Nov. 1901
Anna F. Bellows	8	Lancaster Academy	Sept. 1889
Alice M. Tufts	8	Salem Normal School	Sept. 1896
Isadore M. Thompson	7	Maine Wesleyan Seminary °	Sept. 1904
Susan C. Allison	6	Cambridge High School. (At- tended Boston Normal Sch.) °	Sept. 1889
Bernice E. Bartlett	6-5	Emerson School of Oratory °	Sept. 1907
Madeleine Wood	5	Radcliffe College, A.B.	Sept. 1907
Tina M. King	4	Bridgewater Normal School °	Sept. 1908
Blanche C. Trefethen	4	Normal Dept. Robinson Semin- ary °	Mar. 1895†
Anna H. Welsh	3	(Attended Wellesley College, 2 years) °	Sept. 1901
Dora Trefethen	2	Normal Dept. Robinson Semin- ary °	Apr. 1899
Susan E. Wyeth	2	Cambridge High School	Mar. 1869
Clara A. Goodere	1	Fitchburg Normal School	Jan. 1910
Edith F. Pulsford	1	Kindergarten Training School °	Sept. 1910

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

† Resigned for one year and was reappointed.

## REPORT OF SCHOOL COMMITTEE

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Putnam School</b>			
Frederick B. Thompson	Master	Teachers' School of Science. Bridgewater Normal School	Nov. 1894
Maud M. Mixer	9	Teachers' School of Science. Bridgewater Normal School	Sept. 1905
Eliza S. Paddack	9	Nantucket High School	Sept. 1880
Sarah M. Grieves	8	Cambridge High School*	Oct. 1882
Margaret F. O'Keefe	8	Salem Normal School°	Sept. 1900
Harold B. Blazo	8-7	Harvard University, A.B.	Sept. 1910
Nellie A. Kerrigan	7	Salem Normal School°	Oct. 1904
Annie M. R. Sturtevant	7	Wellesley College, A.B.°	Dec. 1907
Martha Chisholm	6	Gloucester Training School	Sept. 1906
Anna L. P. Collins	6	(Attended Plymouth, N. H., Normal School)	Sept. 1893
Jane E. McKearin	6	Wellesley College, A.B.	Sept. 1907
Minnie F. Wilson	5	Salem Normal School°	May 1900
Mary A. Carmichael	5-4	Salem Normal School°	Feb. 1899
Elsie H. Cooter	4	Salem Normal School°	Sept. 1908
Annie A. Trelegan	4	Salem Normal School°	Dec. 1891
<b>Reed School</b>			
Margaret T. Burke	Prin. 2	Salem Normal School°	May 1886
Alice W. Gaughan	3	Salem Normal School°	Mar. 1911
Clara W. Ruggli	2	Bridgewater Normal School. (Special College Courses)°	Sept. 1900
Julia A. Robinson	1	High School. (Special Courses)	Apr. 1886
<b>Roberts School</b>			
W. Mortimer MacVicar	Master	Acadia College, N. S., A.M.	Sept. 1900
Sara A. Bailey	9	Caledonia Academy	May 1884
Caroline M. Williams	8	Cambridge High School*	Sept. 1880
Gertrude A. White	8-7	Radcliffe College, A.B.	Sept. 1906
John J. Salmon	7	Holy Cross College, A.B. Clark University, A.M.	Sept. 1910
Ida G. Smith	7	(Attended Private High School)	Jan. 1875
Bessie W. C. Fuller	6	(Vermont Academy, 2 yrs. Hy- annis Normal, 2 summers)	Sept. 1909
Evelyn B. Kenney	6	Maine Normal School	Nov. 1886
Ada M. Litchfield	6	Boston Normal School°	May 1891
Mary M. Brigham	5	Winchendon High School	Apr. 1882
Anna E. Lally	5	Framingham Normal School	Nov. 1910
Mary E. Quirk	5	Salem Normal School°	Feb. 1910
Mary P. Blair†	4	(Attended Park College)	Sept. 1882
Elizabeth M. Breslin	4	Salem Normal School°	Mar. 1902
Anna E. Dailey	4	Salem Normal School°	Sept. 1910
Marjorie H. Lenox	4	Salem Normal School°	Sept. 1906
Sarah E. Magurn	4	Framingham Normal School°	Sept. 1907
Lucy S. Carter	3	Lowell Normal School	Apr. 1910
<b>Russell School</b>			
Arthur C. Wadsworth	Master	Harvard Univ., B.S. Wooster, Ohio, Univ., A.M., Ph.D.	Sept. 1897
Mary S. Bingham	9	Salem Normal School. (Special work at Radcliffe)	Sept. 1904

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

† On leave of absence for study or travel in accordance with the Rules of the School Committee.



## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Russell School—Con.</b>			
Louise I. MacWhinnie	9-8	Cambridge Latin School. (Special work at Radcliffe and Boston Univ.)°	Sept. 1903
Fannie P. Browning	8	Fitchburg High School	Sept. 1880
Helen M. Westgate	8-7	Bridgewater Normal School	Nov. 1909
Ida J. Mahoney	7	Framingham Normal School°	Apr. 1903
Adelaide D. Billings	6	Bridgewater Normal School	Sept. 1907†
Faith Foxcroft	6	Mt. Holyoke College, B.A.°	Nov. 1905
H. Maud Maclean	5	Univ. of New Brunswick, B.A.°	Mar. 1896
Josephine F. Rowe	4	Salem Normal School°	Mar. 1909
Mary E. Sullivan	3	Salem Normal School°	Feb. 1909
Alice V. Connelly	2	Salem Normal School°	Sept. 1908
Carrie J. Allison	1	Cambridge High School. (Private School)°	Sept. 1896
<b>Shepard School</b>			
Evelyn J. Locke	Principal	High School. (Attended Boston Training School)	Jan. 1880
Alice M. Gage	7	High School. (Mt. Holyoke College, 2 years)	Mar. 1899
Mary F. Calnane	6	Salem Normal School	Dec. 1896
Florence M. Dudley	6	Salem Normal School°	Dec. 1897
Dora Leadbetter	5	Framingham Normal School. (Courses at Harvard)	Sept. 1906
Theresa H. Mahoney	5	Framingham Normal School°	Sept. 1898
Nettie I. Haff	4	Salem Normal School°	Sept. 1906
Elizabeth J. O'Keefe	4	Kindergarten Training School°	Oct. 1905
Anna E. Welch	4	Salem Normal School	Sept. 1904
Lillian M. Cuddy	3	Salem Normal School°	Dec. 1904
Ellen T. O'Keefe	3	Boston Normal School°	Sept. 1903
<b>Sleeper School</b>			
Sarah J. Gunnison	Principal	Cambridge High School (Special Courses)*	Sept. 1880
Mary A. Macklin	6	Salem Normal School°	Dec. 1902
Melissa M. Lloyd	5	Charlestown High School. (Special Courses)	Sept. 1893†
Evelyn M. Dorner	4	Salem Normal School°	Dec. 1897
Butella E. L. Conland	3	Randolph, Vt., Normal School	Dec. 1898
Helena Murphy	3-2	Salem Normal School°	Mar. 1908
Mary C. Ward	2	Salem Normal School°	Mar. 1911
Mary R. Harrington	1	Salem Normal School°	Oct. 1910
<b>Tarbell School</b>			
Josephine Day	Prin. 3	Farmington, Me., Normal School°	Sept. 1897
Millie A. Isaac	3-2	Salem Normal School°	Sept. 1909
Carrie P. Pierce	2	Gloucester High School. (Salem Normal School, 1 year. Special Courses)°	Oct. 1890
Helene M. Seils	1	Salem Normal School°	Sept. 1909

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

† Taught previous to this and resigned.

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Taylor School</b>			
Ella R. Avery	Principal	Cambridge High School. (Special Courses)	Apr. 1881†
Mary A. Boland	5	Salem Normal School°	Jan. 1898
Emma M. Goodwin	5	Farmington, Me., Normal School	Feb. 1910
Alice G. Dacey	4	Salem Normal School°	Jan. 1909
Winifred B. Goodwillie	4	Salem Normal School°	Mar. 1906
Alice V. Carmichael	3	Salem Normal School°	Mar. 1908
Lillian W. Davis	3-2	Maryland Normal School°	Dec. 1902
Mary A. Maguire	2	Lowell Normal School°	Sept. 1903
Emily M. Dowd	2-1	Lowell Normal School°	Nov. 1905
Annie A. Rea	1	Castine, Me., Normal School	Sept. 1909
<b>Thorndike School</b>			
James Dugan	Master	Amherst College, A.B.	Jan. 1910
Harriet A. Townsend	9	Framingham Normal School	Sept. 1887
Lydia A. Whitchee	9-8	Tilton Seminary	Sept. 1899
Ellen M. Plympton	8	Salem Normal School	Sept. 1898†
Mabel A. Short	7	Smith College, A.B.°	Dec. 1904
Laura S. Westcott	7	Boston Normal School	Sept. 1884
Jennie W. Cronin	6	Boston Normal School°	Oct. 1902
Lillian H. Kenney	6	Salem Normal School°	Mar. 1901
Mary E. Bousquet	5	Salem Normal School°	Sept. 1909
Grace W. Fletcher	5	Cambridge High School*	Feb. 1874
Clare M. Sullivan	4	Salem Normal School°	Sept. 1910
Gertrude R. O'Hara	4	Salem Normal School°	Oct. 1910
Ethel M. MacLeod	4	Radcliffe College, A.B.°	Mar. 1906
<b>Webster School</b>			
John D. Billings	Master	Bridgewater Normal School. Boston Sloyd Training School. Tufts College, A.M. (Honorary)	Sept. 1872
James H. Armstrong	9	Harvard College, A.M. Bridge- water Normal School	Sept. 1909
Alice C. Phinney	9	(Attended Bridgewater Normal School)	Oct. 1881
Martha N. Hanson	9	(Attended N. H. Normal School)	Mar. 1890
Ada A. Billings	8	Bridgewater Normal School	Sept. 1899
Charlotte M. Chase	8	Cambridge Training School	Sept. 1873
Josephine Hills	8	Framingham Normal School	Sept. 1893
Harriette E. Shepard	8	Salem Normal School°	Oct. 1890
Gertrude B. Duffy	7	Salem Normal School. (English Courses at Harvard)°	Apr. 1902
Mary E. Murray	7	Cambridge Latin School. (Rad- cliffe College, 1 year)°	Sept. 1908
Nora P. Nason	7	Gorham, Me., Normal School	Dec. 1906
Olive L. Slater	7	Westfield Normal School	Sept. 1899
Fanny F. Curtis	6	Bridgewater Normal School	Mar. 1898
Minnie V. Reid	6	Boston Normal School°	Sept. 1888
Edna M. Smith	6	Salem Normal School°	Nov. 1910
Mabel T. Ashley	5	Framingham Normal School	Sept. 1896

\* Attended the Cambridge Training School.

° Attended the Wellington Training School.

† Taught previous to this and resigned.

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Webster School—Con.</b>			
Marion Beane	5	Mt. Holyoke College, A.B.	Jan. 1911
Alice M. Colbert	5	Boston Normal School°	Sept. 1909
Honora A. Connell	5	Salem Normal School°	Sept. 1910
Katharine M. Greene	5	Salem Normal School°	Sept. 1904
Frances T. Haley	5	Bridgewater Normal School°	Sept. 1910
Fanny M. Field	4	Bridgewater Normal School	Sept. 1909
Gertrude I. Johnson	4	Worcester Normal School	Sept. 1901
Gertrude A. Kenney	4	Bridgewater Normal School°	Dec. 1906
Anna G. Scannell	4	Salem Normal School	Sept. 1905
<b>Wellington School</b>			
Herbert H. Bates	Master	Westfield Normal School	Oct. 1883
Mary I. Vinton	Supervisor	Salem Normal School	Mar. 1881
Margaret Kidd	Supervisor	Cambridge High School*	Sept. 1880
Carrie H. Stevens	8	Framington, Me., Normal School	Nov. 1894
Grace F. Chamberlain	8	Framingham Normal School	Apr. 1903
Nina L. Kendall	8-7	Randolph, Vt., Normal School	Sept. 1909
Marion B. Alley	7	Radcliffe College, A.B.°	Sept. 1909
Eleanor E. O'Brien	7	Salem Normal School°	Sept. 1909
Ellen A. Sullivan	Clerk	Salem Normal School°	Sept. 1905
Annie W. Cooper	Substitute	Salem Normal School°	
Anna F. Moran	Substitute	Kindergarten Training School°	
Grace I. Nelligan	Substitute	Salem Normal School°	
Jennie L. Powell	Substitute	Salem Normal School°	
Ethel M. S. Smith	Substitute	Kindergarten Training School°	
Training Class			
<b>Willard School</b>			
Katharine E. Hayes	Principal	Framingham Normal School	Sept. 1902
Lucy F. Cline	3	Kindergarten Normal School°	Oct. 1910
Mary E. G. Harrington	3	Cambridge High School*	Apr. 1881
Eliza D. Watson	3	High School. (Course at Boston University)	Sept. 1888†
Annie M. Sands	3-2	Bridgewater Normal School°	Nov. 1905
Elizabeth M. Crowley	2	Salem Normal School°	Dec. 1901
Katherine M. Lowell	2	High School	Sept. 1868
Grace R. Woodward	2	Cambridge High School*	Oct. 1874
Agalena Aldrich	1	Cushing Academy. (Wellesley College, 2 years)°	Sept. 1901
Mary A. Flynn	1	Framingham Normal School	Feb. 1910
Ella F. Gulliver	1	Eastern Normal School, Me.	Apr. 1886
Agnes L. Moran	1	Salem Normal School°	Sept. 1909
<b>Wyman School</b>			
Addie M. Bettinson	Prin. 2	Cambridge High School*	Feb. 1872
Katherine L. Dolan	2	Salem Normal School°	Nov. 1898
Genevieve S. Flint	2-1	Worcester Normal School°	Nov. 1892
Mary H. Brooks	1	Bridgewater Normal School°	Sept. 1898
Jennie B. Ross	1	Salem Normal School°	Sept. 1903
<b>Fresh Air School</b>			
Anna P. Butler	Principal	Trinity Coll., Washington, A.B.°	Sept. 1909

\*Attended the Cambridge Training School.

°Attended the Wellington Training School.

†Taught previous to this and resigned.

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>KINDERGARTENS</b>			
<b>Boardman</b>			
Florence Rice	Head Kind.	Kindergarten Training School. (Radcliffe College, 2 years)	Sept. 1899
Dorothea Cutler	Asst.	Kindergarten Training School <sup>o</sup>	Sept. 1909
<b>Corlett</b>			
Annie M. Dodd	Head Kind.	Kindergarten Training School	Sept. 1897
Frances W. Roberts	Asst.	Kindergarten Training School	Feb. 1905
<b>Gannett</b>			
Carrie E. Shepherd	Head Kind.	Kindergarten Training School. (Special Courses)	Sept. 1897
<b>Gore</b>			
Selma E. Berthold	Head Kind.	Kindergarten Training School	Sept. 1889
<b>Houghton</b>			
Edith L. Lesley	Head Kind.	Kindergarten Training School	Sept. 1897
Olive M. Lesley	Asst.	Kindergarten Training School	Mar. 1899
<b>Lowell</b>			
Melinda Gates	Head Kind.	Kindergarten Training School . (Berlitz School)	Sept. 1889
<b>Merrill</b>			
Caroline A. Leighton	Head Kind.	Kindergarten Training School. (Special Courses)	Sept. 1896
Gertrude L. Bunton	Asst.	Kindergarten Training School <sup>o</sup>	Oct. 1910
<b>Parker</b>			
Leonice S. Morse	Head Kind.	Kindergarten Training School	Dec. 1897
Ruth L. Pike	Asst.	Kindergarten Training School <sup>o</sup>	Sept. 1909
<b>Peabody</b>			
Julia L. Frame	Head Kind.	Kindergarten Training School. (Post-graduate Courses)	Nov. 1898
Irene L. Phelps	Asst.	Kindergarten Training School <sup>o</sup>	Apr. 1904
<b>Shaw</b>			
Harriette E. Ryan	Head Kind.	Kindergarten Training School. (Post-graduate Courses)	Sept. 1889
Ivy M. Ranney	Asst.	Kindergarten Training School <sup>o</sup>	Sept. 1908
<b>Sleeper</b>			
Mabel S. Adams	Head Kind.	Kindergarten Training School	Oct. 1893
<b>Taylor</b>			
Mary F. Leland	Head Kind.	Kindergarten Training School	Mar. 1896
Anna D. Francis	Asst.	Kindergarten Training School <sup>o</sup>	Jan. 1906
<b>Wellington</b>			
Gertrude M. Gove	Head Kind.	Kindergarten Training School	May 1893
Carita B. Dickson	Asst.	Kindergarten Training School	Apr. 1907

<sup>o</sup> Attended the Wellington Training School.

## TABULAR VIEW—Continued.

Schools and Teachers	Year	Where Graduated Highest Institution (Also other Courses)	Date of Appoint- ment
<b>Willard A. M.</b>			
Alice V. McIntire†	Head Kind.	Kindergarten Training School	Sept. 1897
Marion L. Akerman	Act. Head K.	Kindergarten Training School	Apr. 1900
Helen N. Hicks	Asst.	Kindergarten Training School°	Sept. 1910
<b>Willard P. M.</b>			
Jennie S. Clough	Head Kind.	Kindergarten Training School	Sept. 1897
Eva C. Katon	Asst.	Kindergarten Training School	Dec. 1903
<b>Wyman</b>			
Clara A. Hall	Head Kind.	Kindergarten Training School. (Special Courses)	May 1892
Louise M. Clark	Asst.	Kindergarten Training School°	Sept. 1910
<b>Music</b>			
John B. Whoriskey	Director	(Special Courses in vocal and in- strumental music)	Feb. 1911
Annie R. Hooper	Asst.	Robinson Seminary. (Attended Boston Conserv. of Music)	Jan. 1907
<b>Drawing</b>			
Peter Roos	Director	(Courses in Sweden and in the Boston Normal Art School)	Oct. 1896
Lucia N. Jennison	Asst.	Worcester Normal School. Boston Normal Art School	Dec. 1893
<b>Physical Education</b>			
Ernst Hermann	Director	German College. Boston Normal School of Gymnastics	Sept. 1910
<b>Manual Training</b>			
Jennie M. Cilley	Ele. Grades	Maine Normal School. Boston Sloyd Training School	Sept. 1909
Guido L. Carpi	Ele. Grades	Boston Normal Art School. (Special Courses)	Sept. 1910
Lester W. Ladd	Ele. Grades	Harvard University, B.A.S.	Sept. 1910
Harold E. Mason	Ele. Grades	Lester Academy. (Tufts College 3½ yrs.)	Apr. 1910
Abraham M. Schoenfeld	Ele. Grades	Rindge Manual Training School. (Harvard University, 2 yrs.)	Sept. 1910

° Attended the Wellington Training School.

† On leave of absence for study or travel in accordance with the Rules of the School Committee.

## TABULAR VIEW—Concluded.

<b>Teachers of Sewing</b> .....	Agnes Gordon, Director Katharine A. Burke Nancy T. Dawe Maude E. Delorme Alice H. Nay
<b>Permanent Substitute</b> .....	Mary A. Driscoll
<b>Master Emeritus, Latin School</b> .....	William F. Bradbury
<b>Master Emeritus, Thorndike School</b> .....	Ruel H. Fletcher
<b>Unassigned Teachers:</b>	
High School .....	Emma A. Scudder
Grammar Schools .....	Annie B. Josselyn
"    " .....	Emily R. Pitkin
Primary Schools .....	Sally N. Chamberlain
"    " .....	Ellen A. Cheney
"    " .....	Georgianna P. Dutcher
"    " .....	M. Elizabeth Evans
"    " .....	Mary M. Gilman
"    " .....	Ellen N. Leighton
"    " .....	Frances E. Pendexter
"    " .....	Mary E. Sawyer
"    " .....	Abby S. Taylor
<hr/>	
<b>Superintendent of Schools</b> .....	FRANK E. PARLIN
<b>Supervisor of Primary Schools</b> .....	MARY A. LEWIS
<b>Secretary and Agent</b> .....	SANFORD B. HUBBARD
<hr/>	
<b>Clerks</b> .....	Constantine J. Church Mary A. L. Forrest Althea B. Frost
<b>Truant Officers</b> .....	Lucian S. Cabot William F. Donovan William H. Porter Thomas F. Riley
<b>Porter</b> .....	John H. Lemon

## CHANGES IN TEXT-BOOKS

The following books have been recommended by the superintendent and adopted by the Board during the year from April 1, 1910, to April 1, 1911:—

FOR THE RINDGE MANUAL TRAINING SCHOOL. Holton's Shop Mathematics.

FOR THE HIGH SCHOOLS. Bailey's Beginners' Botany; Bacon's *Im Vaterland*; Davison's Human Body and Health, Advanced; Moores' Life of Abraham Lincoln; Myers' The Modern Age; Scudder's Historical Biography of George Washington; Valdes' Jose.

FOR THE ELEMENTARY SCHOOLS. Walton and Holmes' Series of Arithmetics.

FOR ALL SCHOOLS. Webster's Series of Dictionaries.

## SCHOOL COMMITTEE

1911-1912

PROFESSOR JOSEPH H. BEALE, LL.D., *President*

\*PROFESSOR JOSEPH H. BEALE, 29 Chauncy Street

MR. FRED A. McMENIMEN, 100 Winter Street

MR. CHARLES A. REYNOLDS, 229 Franklin Street

\*JAMES B. VALLELY, ESQ., 9½ Roseland Street

MRS. FLORENCE LEE WHITMAN, 23 Everett Street

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 SANFORD B. HUBBARD, *Secretary and Agent*


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Regular meetings of the School Committee are held on alternate Fridays, at eight o'clock P. M.

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## SUPERINTENDENT OF SCHOOLS

OFFICE, CITY HALL

FRANK EDSON PARLIN . . . . . 3 Forest Park

## OFFICE HOURS

Office open: From 8 o'clock A. M. to 5 o'clock P. M., every week day except Saturday; Saturday, from 8 o'clock A. M. to 12 o'clock M.

Superintendent's hours: Regularly from 4 to 5 o'clock P. M., every school day except Wednesday. Usually from 8.30 to 9.30 o'clock A. M.

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 \* Elected at large.



## SCHOOL CALENDAR

1911

The Winter Term: January 3 to March 24

The Spring Term: April 3 to June 23

The Fall Term: September 13 to December 22

1912

The Winter Term: January 2 to March 29

The Spring Term: April 8 to June 28

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## SCHOOL HOLIDAYS

Columbus Day, the twelfth of October; Thanksgiving Day, with the preceding day and the day following; the twenty-second of February; Good Friday; the nineteenth of April; Memorial Day; the seventeenth of June; and in addition to these, for the high schools, Commencement Day at Harvard College.













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